

**Iowa Department of Natural Resources
Title V Operating Permit**

Name of Permitted Facility: Nichols Aluminum - Casting
Facility Location: 2101 JM Morris Blvd.
Davenport, Iowa 52802
Air Quality Operating Permit Number: 03-TV-017
Expiration Date: June 15, 2008

EQ Number: 92-4290
Facility File Number: 82-01-089

Responsible Official

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Douglas A. Campbell, Supervisor of Air Operating Permits Section

Date

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Abbreviations

acfm.....	actual cubic feet per minute
CFR	Code of Federal Regulation
COM.....	continuous opacity monitory
D/F.....	dioxins and furans
dscm	dry standard cubic meter
EIQ	emissions inventory questionnaire
gr./dscf.....	grains per dry standard cubic foot
gr./100 cf	grains per one hundred cubic feet
HCl	for the purposes of 40 CFR 63 Subpart RRR, emissions of hydrogen chloride that serve as a surrogate measure of the total emissions of the HAPs hydrogen chloride, hydrogen fluoride and chlorine
hp-hr	horsepower hour
IAC	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
kg.....	kilogram
L	liter
LGT	light organic volatile compounds
Mg	megagram
m ³	cubic meter
MVAC.....	motor vehicle air conditioner
NSPS	new source performance standard
OM&M.....	operation, maintenance, and monitoring
ppmv.....	parts per million by volume
lb./hr	pounds per hour
lb./MMBtu.....	pounds per million British thermal units
SAPU.....	secondary aluminum processing units
SPM.....	significant permit modification
scfm.....	standard cubic feet per minute
TEQ	for the purposes of 40 CFR 63 Subpart RRR, the international method of Expressing toxicity equivalents for dioxins and furans as defined in "Interim Procedures for Estimation Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and –Dibenzofurans and 1989 Update" (EPA-625/3-89-016)
THC.....	for the purposes of 40 CFR 63 Subpart RRR, total hydrocarbon emissions that also serve as a surrogate for the emissions of organic HAP compounds
TPY	tons per year
USEPA	United States Environmental Protection Agency

Pollutants

PM	particulate matter
PM ₁₀	particulate matter ten microns and less in diameter
SO ₂	sulfur dioxide
NO _x	nitrogen oxides
VOC	volatile organic compound
CO	carbon monoxide
HAP	hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Nichols Aluminum - Casting

Permit Number: 03-TV-017

Facility Description: Aluminum Sheet, Plate, and Foil

Equipment List		
Emission Point Number	Associated Emission Unit(s) Number (s)	Associated Emission Unit Description
01	01	Aluminum Shredder
02a	02a	Shredder Engine #1
02b	02b	Shredder Engine #2
02c	02c	Shredder Engine #3 (Spare)
03	03	Delacquering System
	03a	Delacquering System (Natural Gas)
	09	Melting Furnace #3
	19	Hot Gas Generator
04	04a	Melting Furnace #1 (Natural Gas)
05	05a	Melting Furnace #2 (Natural Gas)
08	08	Three Stand Hot Mill
09	09a	Melting Furnace #3 (Natural Gas)
13	13	Two (2) Rotary Barrel Furnaces/Assoc. Processes
15a	15	Refractory Curing Oven
15b	15	Refractory Curing Oven
16F	16	Direct Fired Heaters > 1.8 MMBtu/hr (Vent Internally)
18F	18	2 Dross Presses (Vent Internally)
20	20	Caster Water Pump Backup Engine
21	21	Fire System Engine Combustion
23	04	Melting Furnace #1
	05	Melting Furnace #2
	06	Holding Furnace #1
	06a	Holding Furnace #1 (Natural Gas)
	07	Holding Furnace #2
	07a	Holding Furnace #2 (Natural Gas)
	14	Burner Ball Shaker
Fugitives	22	Holding Furnace Degasser
	FUG MELT LGT	Fugitives From Melters (Demagging, Skim) Fugitive Losses From Volatile Liquids

Insignificant Equipment List

**Insignificant Emission
Unit Number**

Insignificant Emission Unit Description

17a
17b
Anodizing
DFT
HVY
MW

Direct Fired Heaters <1.8 MMBtu/hr
Indirect Fired Heaters and Boiler <10 MMBtu/hr
Anodizing Station
2 - 1,000 Gallon Diesel Storage Tanks
Fugitive Losses From Heavy Liquids
Maintenance Welding

II. Plant-Wide Conditions

Facility Name: Nichols Aluminum - Casting
Permit Number: 03-TV-017

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: 5 years
Commencing on: June 16, 2003
Ending on: June 15, 2008

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Emission Limits

Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO₂): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (state enforceable only)¹:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

¹ This is the current language in the Iowa Administrative Code (IAC). This version of the rule is awaiting EPA approval to become part of Iowa's State Implementation Plan (SIP). When EPA approves this rule, it will replace the older version and will be considered federally enforceable.

Particulate Matter (federally enforceable)²:

The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

Compliance Plan

The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Unless otherwise noted in Section III of this permit, Nichols Aluminum - Casting is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, Nichols Aluminum - Casting shall comply with such requirements in a timely manner. Nichols Aluminum – Casting is currently operating under Administrative Consent Order No. 2002-AQ-36, which is attached to this permit as Appendix F.

Authority for Requirement: 567 IAC 22.108(15)

² This is the current language in the Iowa SIP, and is enforceable by EPA.

III. Emission Point-Specific Conditions

Facility Name: Nichols Aluminum - Casting

Permit Number: **03-TV-017**

Emission Point ID Number: 01

Associated Equipment

Associated Emission Unit ID Numbers: 01

Emissions Control Equipment ID Number: CE01

Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 01

Emission Unit Description: Aluminum Shredder

Raw Material/Fuel: Metal

Rated Capacity: 95,300 lbs./hour

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 92-A-218-S1
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.02 gr./dscf, 10.2 lb./hr, 44.7 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 92-A-218-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.02 gr./dscf, 10.2 lb./hr, 44.7 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 92-A-218-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- A. This aluminum shredder is limited to a maximum throughput of 95,300 pounds per hour, averaged over the hours the shredder is operated in a single day.
- B. The baghouse on this unit shall be operated whenever the shredder is in use.

Reporting & Record keeping:

All records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the number of hours the aluminum shredder is operated per day. Calculate the hourly average processing rate over the time period that the shredder operates in that day.
- B. Record the amount of aluminum processed in this shredder, in pounds per hour. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-218-S1

NESHAP:

- The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production - 567 IAC 23.1(4)"br" by March 24, 2003. This unit is regulated under Subpart RRR as an Aluminum Scrap Shredder. Excerpts of the Subpart RRR requirements are included in Section V of this permit.

Authority for Requirement: 40 CFR 63 Subpart RRR – Secondary Aluminum Production
567 IAC 23.1(4)"br"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 55

Stack Diameter (inches): 42

Stack Exhaust Flow Rate (acfm): 60,000

Stack Temperature (°F): Ambient

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permit 92-A-218-S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – PM₁₀

1st Stack Test to be Completed by (date) – June 16, 2005

Test Method – 201A with 202, 40 CFR 51⁽¹⁾

⁽¹⁾ or an approved alternative

Authority for Requirement - 567 IAC 22.108(3)"b"

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter/PM₁₀

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

SHREDDING UNIT OM&M PLAN

Secondary Aluminum MACT Standard OM&M Plan
Agency Approved O&M Plan as Required by Title V Permit

FORM 020603.DOC SA REV 5-5-03

Definitions of acronyms as used in this plan:

CAAA = Clean Air Act Amendments

CE = Control Equipment

CFR = Code of Federal Regulations

CPMS = Continuous Parameter Monitoring System

CMMS = Computerized Maintenance Management System

EU = Emission Unit (defined by MACT as a group 1 furnace or an in-line fluxer; all others are affected sources)

OM&M = Operation, Maintenance, & Monitoring

P.M. = Preventative Maintenance

SAPU = Secondary Aluminum Processing Unit

SECAL MACT = SECondary ALuminum Maximum Achievable Control Technology

SSM = Startup, Shutdown, Malfunction

Floating Interval = An approximate period of time where the end point is variable; the subsequent approximate period of time begins anew at the end point of the previous time period

TBD = To Be Determined

General Procedures:

Only one item, the baghouse, is needed to prevent excess emissions of hazardous air pollutants from the production of aluminum shreds in the Shredding Unit. Defining the pollution control equipment as the affected source in this OM&M plan is consistent with the terms outlined in the Preambles of the SECAL MACT standard and Section 112 of the CAAA, and in guidance from the EPA Websites.

This facility is committed to making timely corrective actions to this unit in times of excursion where the indicators are out of range. Corrective actions may involve an investigation as to the reason, evaluation of the situation, and an appropriate chronological range of actions to remedy the situation. A baghouse bag leak detector system alarm may be an excursion. An excursion does not necessarily indicate a violation of an applicable requirement.

If an excursion occurs, one of three levels of action will be taken: (Level 1) the control equipment causing the excursion shall be repaired in an expeditious manner, or if that cannot be accomplished in a reasonable period of time, (Level 2) the process generating the emissions shall be changed to minimize excess emissions of hazardous air pollutants, or if that cannot be accomplished in a reasonable period of time, (Level 3) commencement of a total orderly shutdown of all production processes that cause excess hazardous air pollutant emissions. A timely or expeditious manner is the time necessary to determine the cause of the excursion and to correct it in a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to change or shut down the process without jeopardizing employee safety or damaging the process or control equipment.

Emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for

SHREDDING UNIT OM&M PLAN

Secondary Aluminum MACT Standard OM&M Plan

Agency Approved O&M Plan as Required by Title V Permit

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minimizing emissions. Run-time conditions will be monitored by the CPMS. Monitoring is not required during periods of time greater than one day when the source does not operate. CPMS detected excursions or malfunctions, including the date, time, and duration, will be recorded as outlined in the SSM Plan.. Excess emissions will be reported as required by 40 CFR 63.1516(b) of the SECAL MACT standard.

Shredding Unit OM&M Plan Specifics:

Note: The layout convention below follows the OM&M outline sequence listed in 40 CFR 63.1510(b)

- (1) The following process and control device parameters are monitored to determine compliance with the applicable emission limits for the Shredding unit:
 - (a) Baghouse leak detector alarm system – automated system to assure that the baghouse bags are in good working condition.

The operating levels or ranges for the above parameter is established as follows:

- (a) Baghouse leak detector alarm system – TBD
- (2) The monitoring schedule for each affected source (control device) is as follows:
 - (a) Baghouse leak detector alarm system – automated system
 - (3) Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits are as follows:
 - (a) Baghouse system – Addendum 3(a)

Note: the proper operation and maintenance of the baghouse leak detector alarm system is incorporated in item (4) below.
 - (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: Calibration and Certification of accuracy of each monitoring device, according to the manufacturer's instructions are as follows:
 - (a) General Operation, Maintenance, and Quality Control of Continuous Parameter Monitoring Systems:
 - (i) This facility will endeavor to maintain and operate each CPMS in a manner consistent with good air pollution practices.
 - (ii) Every attempt will be made to repair CPMS detected malfunctions as outlined in the SSM (Startup, Shutdown, Malfunction) Plan, and reported in the semiannual startup, shutdown, and malfunction report required by the SECAL MACT standard. Any actions not consistent with the SSM Plan will be recorded and reported in the semiannual excess emissions/summary report as required by the SECAL MACT standard (records kept by the Engineering Secretary).
 - (b) Baghouse leak detector alarm system – Addendum 4(b)

SHREDDING UNIT OM&M PLAN

Secondary Aluminum MACT Standard OM&M Plan

Agency Approved O&M Plan as Required by Title V Permit

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- (5) Procedures for monitoring control device parameters are as follows:
 - (a) Control device parameter monitoring is done by automation. Should the monitoring system detect a malfunction, it automatically sends an alarm signal to plant operations personnel who will respond and initiate corrective action as outlined in the unit SSM Plan.
 - (b) Additionally, preventative maintenance procedures are performed that monitor control device parameters as outlined and incorporated in item (4) above.

- (6) Corrective actions to be taken when add-on control device parameters deviate from the specified limit or range, including:
 - A. Procedures to determine and record the cause of the deviation or excursion
 - B. The time the deviation or excursion began and ended
 - C. Procedures for recording the corrective action taken
 - D. The corrective action initiation and completion times/dates
 - (a) When a monitored parameter malfunction alarm occurs, Operations Personnel will, as soon as practicable, initiate corrective action. Note that SECAL MACT requires initiation of corrective action within one hour of the alarm.
 - (b) Operations Personnel will then perform appropriate diagnostic and troubleshooting functions on the equipment to determine the cause of the malfunction, and the proper corrective action will be taken as outlined in the unit SSM Plan.
 - (c) All monitored parameter malfunctions will be detailed and recorded (records kept by the Engineering Secretary) on the "Startup-Shutdown-Malfunction Log", including:
 - (i) The date of the malfunction.
 - (ii) The time of the alarm.
 - (iii) The time that corrective action was initiated.
 - (iv) Cause of the malfunction.
 - (v) Corrective action taken, including steps to minimize excess stack emissions if necessary.
 - (vi) Date and time that the corrective action was completed.
 - (vii) Total duration, in minutes or hours, of the malfunction.

- (7) Maintenance Schedule for each control device consistent with manufacturer's instructions and recommendations for routine and long-term maintenance:
 - (a) Baghouse leak detector alarm system – Monthly and yearly floating intervals

- (8) Documentation of work instructions and pollution prevention measures used to achieve compliance for *group 1* furnaces *without* an add-on pollution control device:
 - (a) Not Applicable – No Group 1 furnaces in the Shredding Unit.

- (9) - (10) - (11) SAPU site-specific information:
 - (a) Not applicable - The Shredder Unit is not a SAPU

SHREDDING UNIT OM&M PLAN

Secondary Aluminum MACT Standard OM&M Plan
Agency Approved O&M Plan as Required by Title V Permit

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Addendum 3(A) - Baghouse System

Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits:

The Secondary Aluminum MACT Standard requires inspection of each capture/collection and closed vent system at least once each calendar year. Although the Company frequently conducts Baghouse Preventative Maintenance (P.M.) at floating intervals, only the yearly inspection is included in this plan, which satisfies the standard and does not overly burden the company with unnecessary record keeping in the spirit of the Paperwork Reduction Act. The Baghouse Yearly Preventative Maintenance Guide Form has been compiled using both the appropriate manufacturers specifications and general historical experience. Because the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide form is generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(b) - Baghouse Leak Detector System

Bag Leak Detector System specific Operation, Maintenance, and Quality Control:

The bag leak detector system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The bag leak detector system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because bag leak detectors have not been previously required or necessary, the company has no experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Emission Point ID Number: 02a

Associated Equipment

Associated Emission Unit ID Number: 02a

Emissions Control Equipment ID Number: CE02a

Emissions Control Equipment Description: Catalytic Converter

Applicable Requirements

Emission Unit vented through this Emission Point: 02a

Emission Unit Description: Shredder Engine #1

Raw Material/Fuel: Natural Gas

Rated Capacity: 1,834 hp-hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.7 gram/hp-hr, 2.8 lb./hr, 12.3 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 92-A-219

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- Only two of the three shredder engines EU 02a, EU 02b, and EU 02c shall be operated at one time.

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 02b

Associated Equipment

Associated Emission Unit ID Numbers: 02b

Emissions Control Equipment ID Number: CE02b

Emissions Control Equipment Description: Catalytic Converter

Applicable Requirements

Emission Unit vented through this Emission Point: 02b

Emission Unit Description: Shredder Engine #2

Raw Material/Fuel: Natural Gas

Rated Capacity: 1,834 hp-hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.7 gram/hp-hr, 2.8 lb./hr, 12.3 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 92-A-220

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- Only two of the three shredder engines EU 02a, EU 02b, and EU 02c shall be operated at one time.

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 02c

Associated Equipment

Associated Emission Unit ID Numbers: 02c

Emissions Control Equipment ID Number: CE02a or CE02b

Emissions Control Equipment Description: Catalytic Converter

Applicable Requirements

Emission Unit vented through this Emission Point: 02c

Emission Unit Description: Shredder Engine #3 (Spare)

Raw Material/Fuel: Natural Gas

Rated Capacity: 1,834 hp-hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of 20% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 02-A-011
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 1.3 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 2.8 lb./hr, 12.3 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb./MMBtu

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- A. This engine shall be fired by natural gas only.
- B. Only two of the three shredder engines EU 02a, EU 02b, and EU 02c shall be operated at one time.

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 61

Stack Diameter (inches): 8.4

Stack Exhaust Flow Rate (acfm): 8,461

Stack Temperature (°F): 1,140

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permit 02-A-011

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 03

Associated Equipment

Associated Emission Unit ID Numbers: 03, 03a, 09, 19

Emissions Control Equipment ID Number: CE03

Emissions Control Equipment Description: Lime Coated Baghouse (CE03)

Applicable Requirements

EU = Emission Unit

EU	EU Description	Raw Material	Rated Capacity	Control ID
03	Delacquering System	Metal	27.50 tons/hr	CE03
03a	Delacquering System (Natural Gas)	Natural Gas	0.018 MMcf/hr	CE03
09	Melting Furnace #3	Metal	360 tons/day	CE03
19	Hot Gas Generator	Natural Gas	0.010 MMcf/hr	CE03

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 7.34 lbs./hr, 31.7 tons/year

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5
567 IAC 23.3(2)"a"

Pollutant: Particulate Matter

Emission Limit(s): 7.34 lbs./hr, 31.7 tons/year

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 15.5 tons/year

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5

Pollutant: Volatile Organic Compound (VOC)

Emission Limit(s): 39.0 tons/year

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Equipment Capacity:

- A. Melter 3 (EU 09) is limited to a maximum throughput of 360 tons per day and 131,400 tons per year.
- B. The exhaust temperature booster on the Delacquering System (EU 03) shall be fired by natural gas and maintained at or above 1,400 degrees F. whenever the Delacquering System is in operation. The residence time in the combustion chamber shall be at least one second.
- C. The exhaust from the Melter (EU 09) and the Delacquering System (EU 03) shall be vented to the baghouse (CE 03).
- D. The pressure drop across the baghouse (CE 03) shall not exceed 8 inches of water.
- E. The operator shall inspect the baghouse (CE 03) at least once a week for problems that could affect the pollution control efficiency. Corrective action shall be taken promptly.

Reporting and Recordkeeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of material processed in Melter 3 (EU 09), in tons per day. Calculate and record monthly and 12-month rolling totals.

- B. Monitor* the temperature of the exhaust temperature booster on the Delacquering System when the Delacquering System is in operation.
- C. Monitor* the pressure drop across the baghouse (CE 03) on a regular basis.
- D. Maintain a record of inspections and maintenance on the baghouse (CE 03).

* These monitoring requirements are required to be visible observations and are not required to be recorded under the authority of Iowa DNR Construction Permit 90-A-386-S5.

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5

NESHAP:

- U.S. EPA Region 7 has granted two separate compliance extensions for these emission units. The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production - 567 IAC 23.1(4)"br" by March 23, 2004. These units are regulated under Subpart RRR as the following:

EP	EU	EU Description	Regulated As
03	03	Delacquering/Melting Baghouse	Scrap Dryer/Delacquering Kiln/Decorating Kiln
03	03a	Delacquering System (Nat. Gas)	Scrap Dryer/Delacquering Kiln/Decorating Kiln
03	09	Melting Furnace #3	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace

Excerpts of the Subpart RRR requirements are included in Section V of this permit.

Authority for Requirement: 40 CFR 63 Subpart RRR –Secondary Aluminum Production
567 IAC 23.1(4)"br"

Requirements of EPA-Issued Compliance Extension dated November 7, 2001:

This extension applies to the delacquering kiln – Emission Units 03 and 03a.

In the extension request dated September 25, 2001, Nichols Aluminum – Casting (NAC) outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 5, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 13, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and
4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These

progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities* will be allowed to be charged in the melter/holding furnaces during this time period.

* Per the 11/07/2001 Extension, "NAC facilities" means: Nichols Aluminum Casting supplies several Nichols Aluminum facilities with aluminum coils. Scrap generated by these facilities is returned to NAC to be remelted at the 2101 J.M. Morris Blvd. Facility in Davenport, Iowa.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 11/07/2001

Requirements of EPA-Issued Compliance Extension dated April 5, 2002:

This extension applies to Melting Furnace #1 (EU 04), Melting Furnace #2 (EU 05), and Melting Furnace #3 (EU 09).

Nichols Aluminum – Casting (NAC) will purchase and install a new baghouse to control Melters 1 through 3, or purchase and install additional control modules to control Melters 1 through 3, along with the Delacquer Kiln and Holding Furnaces. NAC will increase the flow capacity of the capture system. NAC will install a carbon injection system for dioxin/furan control or rearrange the ductwork system to inhibit dioxin/furan information.

In the extension request dated March 11, 2002, NAC outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 31, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 30, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and
4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility

and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures specified in the November 7, 2001 letter must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities will be allowed to be charged in the melter/holding furnaces during this time period.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 04/05/2002

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 70

Stack Diameter (inches): 60

Stack Exhaust Flow Rate (scfm): 107,270

Stack Temperature (°F): 375

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permit 90-A-386-S5

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Opacity

1st Stack Test to be Completed by (date) – *within 180 days after removing the afterburner from Melter 3 (EU 09) and installing the exhaust temperature booster.*

Test Method – 40 CFR 60, Appendix A, Method 9⁽¹⁾
⁽¹⁾ or an approved alternative

Test Run Time⁽²⁾ – 1 hour
⁽²⁾ average of three (3) runs

Authority for Requirement - Iowa DNR Construction Permit 90-A-386-S5

Pollutant – PM₁₀

1st Stack Test to be Completed by (date) – *within 180 days after removing the afterburner from Melter 3 (EU 09) and installing the exhaust temperature booster.*

Test Method – 201A with 202, 40 CFR 51⁽¹⁾
⁽¹⁾ or an approved alternative

Test Run Time⁽²⁾ – 6 hours
⁽²⁾ average of three (3) runs

Authority for Requirement - Iowa DNR Construction Permit 90-A-386-S5

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter/PM₁₀

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

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Definitions of acronyms as used in this plan:

CAAA = Clean Air Act Amendments

CE = Control Equipment

CFR = Code of Federal Regulations

CPMS = Continuous Parameter Monitoring System

CMMS = Computerized Maintenance Management System

EU = Emission Unit (defined by MACT as a group 1 furnace or an in-line fluxer; all others are affected sources)

OM&M = Operation, Maintenance, & Monitoring

P.M. = Preventative Maintenance

SAPU = Secondary Aluminum Processing Unit

SECAL MACT = SECondary ALuminum Maximum Achievable Control Technology

Floating Interval = an approximate period of time where the end point is variable; the subsequent approximate period of time begins anew at the end point of the previous time period

Group 1 Furnace = a furnace of any design that melts, holds, or processes aluminum that contains paint, lubricants, coatings, or other foreign materials with or without reactive fluxing, or processes clean charge with reactive fluxing

TBD = To Be Determined

General Procedures:

Only two items, the baghouse and the Delaq Exhaust Temperature Booster, are needed to prevent excess emissions of hazardous air pollutants from the production of aluminum in the Melter 3-Delaq Unit. Defining the pollution control equipment as the affected sources in this OM&M plan is consistent with the terms outlined in the Preambles of the SECAL MACT standard and Section 112 of the CAAA, and in guidance from the EPA Websites.

This facility is committed to making timely corrective actions to this Unit in times of excursion where the indicators are out of range. Corrective actions may involve an investigation as to the reason, evaluation of the situation, and an appropriate chronological range of actions to remedy the situation. Baghouse bag leak detector system alarms, baghouse lime injection system alarms, baghouse inlet temperature system alarms, and Delaq Exhaust Temperature Booster system alarms are considered by the facility as excursions. An excursion does not necessarily indicate a violation of an applicable requirement.

If an excursion occurs, one of three levels of action will be taken: (Level 1) the control equipment causing the excursion shall be repaired in an expeditious manner, or if that cannot be accomplished in a reasonable period of time, (Level 2) the process generating the emissions shall be changed to minimize excess emissions of hazardous air pollutants, or if that cannot be accomplished in a reasonable period of time, (Level 3) commencement of a total orderly shutdown of all production processes that could cause excess hazardous air pollutant emissions. A timely or expeditious manner is the time necessary to determine the cause of the excursion and to correct it in a reasonable period of time. A reasonable period of time is less than 24-hours plus the period of time required to change or shut down the process without jeopardizing employee safety or damaging the process or control equipment.

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Emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Run-time conditions will be monitored by the CPMS. Monitoring is not required during periods of time greater than one day when the source does not operate. CPMS detected excursions or malfunctions, including the date, time, and duration, will be recorded as outlined in the SSM Plan. Excess emissions will be reported as required by 40 CFR 63.1516(b) of the SECAL MACT standard.

MELTER 3-DELAQ Unit OM&M Plan Specifics:

Note: The layout convention below follows the OM&M outline sequence listed in 40 CFR 63.1510(b)

- (1) The following process and control device parameters are monitored to determine compliance with the applicable emission limits for the Melter 3-Delaq Unit:
 - (a) Baghouse leak detector alarm system – automated system to assure that the baghouse bags are in good working condition.
 - (b) Baghouse lime injection alarm system – automated system to assure that the baghouse lime system is functioning properly.
 - (c) Baghouse inlet temperature alarm system – automated system to assure that the baghouse inlet temperature is within allowable parameter range.
 - (d) Delaq Exhaust Temperature Booster alarm system – automated system to assure that the temperature is within allowable parameter range.

The operating levels or ranges for the above parameters are established as follows:

- (a) Baghouse leak detector alarm system – TBD
 - (b) Baghouse lime injection alarm system – TBD
 - (c) Baghouse inlet temperature alarm system – TBD
 - (d) Delaq Exhaust Temperature Booster alarm system – At or above 1400 deg F.
- (2) The monitoring schedule for each affected source (control device) is as follows:
 - (a) Baghouse leak detector alarm system – automated system
 - (b) Baghouse lime injection alarm system – automated system
 - (c) Baghouse inlet temperature alarm system – automated system
 - (d) Delaq Exhaust Temperature Booster alarm system – automated system
- (3) Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits are as follows:
 - (a) Baghouse system – Addendum 3(a)
 - (b) Delaq Exhaust Temperature Booster – Addendum 3(b)

Note: the proper operation and maintenance of the baghouse leak detector alarm system, the baghouse lime injection alarm system, the baghouse inlet temperature alarm system, and the Delaq Exhaust Temperature Booster alarm system are incorporated in item (4) below.

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- (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: Calibration and Certification of accuracy of each monitoring device, according to the manufacturer's instructions are as follows:
 - (a) General Operation, Maintenance, and Quality Control of Continuous Parameter Monitoring Systems:
 - (i) This facility will endeavor to maintain and operate each CPMS in a manner consistent with good air pollution practices.
 - (ii) Every attempt will be made to repair CPMS detected malfunctions as outlined in the SSM (Startup, Shutdown, Malfunction) Plan, and reported in the semiannual startup, shutdown, and malfunction report required by the SECAL MACT standard. Any actions not consistent with the SSM Plan will be recorded and reported in the semiannual excess emissions/summary report as required by the SECAL MACT standard (records kept by the Engineering Secretary).
 - (b) Baghouse leak detector alarm system – Addendum 4(b)
 - (c) Baghouse lime injection alarm system – Addendum 4(c)
 - (d) Baghouse inlet temperature alarm system – Addendum 4(d)
 - (e) Delaq Exhaust Temperature Booster alarm system – Addendum 4(e)
- (5) Procedures for monitoring control device parameters are as follows:
 - (a) Control device parameter monitoring is done by automation. Should the monitoring system detect a malfunction, it automatically sends an alarm signal to plant operations personnel who will respond and initiate corrective action as outlined in the Unit SSM Plan.
 - (b) Additionally, preventative maintenance procedures are performed that monitor control device parameters as outlined and incorporated in item (4) above.
- (6) Corrective actions to be taken when add-on control device parameters deviate from the specified limit or range, including:
 - A. Procedures to determine and record the cause of the deviation or excursion
 - B. The time the deviation or excursion began and ended
 - C. Procedures for recording the corrective action taken
 - D. The corrective action initiation and completion times/dates
 - (a) When a monitored parameter malfunction alarm occurs, Operations Personnel will, as soon as practicable, initiate corrective action. Note that SECAL MACT requires initiation of corrective action within one hour of the alarm.
 - (b) Operations Personnel will then perform appropriate diagnostic and troubleshooting functions on the equipment to determine the cause of the malfunction, and the proper corrective action will be taken as outlined in the Unit SSM Plan.
 - (c) All monitored parameter malfunctions will be detailed and recorded (records kept by the Engineering Secretary) on the "Startup-Shutdown-Malfunction Log", including:
 - (i) The date of the malfunction.
 - (ii) The time of the alarm.
 - (iii) The time that corrective action was initiated.
 - (iv) Cause of the malfunction.
 - (v) Corrective action taken, including steps to minimize excess stack emissions if necessary.
 - (vi) Date and time that the corrective action was completed.
 - (vii) Total duration, in minutes or hours, of the malfunction.

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- (7) Maintenance Schedule for each control device consistent with manufacturer's instructions and recommendations for routine and long-term maintenance:
 - (a) Baghouse leak detector alarm system – Monthly and yearly floating intervals
 - (b) Baghouse lime injection alarm system – Monthly and yearly floating intervals
 - (c) Baghouse inlet temperature alarm system – Monthly and yearly floating intervals
 - (d) Delaq Exhaust Temperature Booster alarm system – Monthly and yearly floating intervals
- (8) Documentation of work instructions and pollution prevention measures used to achieve compliance for *group 1* furnaces *without* an add-on pollution control device:
 - (a) Not Applicable – All group 1 furnaces in this Unit have an add-on pollution control device
- (9) The following SAPU site-specific information is listed below:
 - (a) Identification of each EU (emission unit) in the SAPU:
 - (i) Emission unit 04 = Melter 1 charge wells
 - (ii) Emission unit 05 = Melter 2 charge wells
 - (iii) Emission unit 06 = Holder 1
 - (iv) Emission unit 07 = Holder 2
 - (v) Emission unit 09 = Melter 3 charge wells
 - (vi) Emission unit 13a = Rotary Barrel Furnace 1
 - (vii) Emission unit 13b = Rotary Barrel Furnace 2
 - (viii) Emission unit 22 = Degasser
 - (ix) Note: The media (Burner Ball Shaker) cleaning system is common ducted to the M-1&2/ H-1&2/ Degasser baghouse but is not an emission unit as defined in the SECAL MACT standard.
 - (x) Note: The Delacquering system is common ducted to the Melter 3 - Delaq baghouse but is not an emission unit as defined in the SECAL MACT standard.
 - (xi) Note: The Rotary Dross Cooler and the RBF material bins are common ducted to the RBF baghouse but are not Emission Units as defined in the SECAL MACT standard.
 - (b) The specific control technology or pollution prevention measure to be used on each EU and the date of its installation or application:
 - (i) All M-1 & 2 / H-1 & 2 / Degasser Unit EU's (EU04, EU05, EU06, EU07, EU22) are common ducted to EP23 lime injected baghouse, which, along with a bag leak detection system, a lime injection detection system, and an inlet temperature monitoring system, were installed/approved on date - TBD.
 - (ii) EU 09 was installed/approved on 8-5-94 and is common ducted to EP03 lime injected baghouse which was installed/approved on 11-5-90. A bag leak detection system and an inlet temperature monitoring system were added to the baghouse (installed /approved) on date-TBD
 - (iii) EU 13a & EU 13b are common ducted to EP13 lime injected baghouse installed/approved Oct. 1998. A bag leak detection system, an updated lime injection system, and an inlet temperature monitoring system were added to the baghouse (installed /approved) on March 23, 2003.
 - (c) Calculated SAPU emission limit and performance test results and supporting calculations demonstrating initial compliance for each EU:
 - (i) Listed in Addendum 9(c)
 - (d) Information and data demonstrating compliance for each EU with all applicable design, equipment, work practice or operational standards:
 - (i) Listed in Addendum 9(d)

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- (e) Monitoring requirements applicable to each EU in the SAPU and monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t):
 - (i) Listed in Addendum 9(e)
- (10) The SAPU compliance procedures within this OM&M plan do not contain any of the following provisions:
 - (a) Any averaging among emissions of differing pollutants
 - (b) The inclusion of any affected sources other than EU's in this SAPU, except common ducted sources as allowed by and approved by the permitting authority with the acceptance of this plan.
 - (c) The inclusion of any EU while it is shutdown
 - (d) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations
- (11) To revise the SAPU compliance provisions within this OM&M plan prior to the end of the permit term, the owner or operator will submit a request to the applicable permitting authority containing the information required by paragraph (9) of this plan and obtain approval of the applicable permitting authority prior to implementing any revisions.

Addendum 3(a) - Baghouse System

Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits:

The Secondary Aluminum MACT Standard requires inspection of each capture/collection and closed vent system at least once each calendar year. Although the Company frequently conducts Baghouse Preventative Maintenance (P.M.) at floating intervals, only the yearly inspection is included in this plan, which satisfies the standard and does not overly burden the company with unnecessary record keeping in the spirit of the Paperwork Reduction Act. The Baghouse Yearly Preventative Maintenance Guide Form has been compiled using both the appropriate manufacturers specifications and general historical experience. Because the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide form is generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

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Addendum 3(b) - Delaq Exhaust Temperature Booster System

Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits:

The Secondary Aluminum MACT Standard may require inspection of each Delaq Exhaust Temperature Booster at least once each calendar year. Although the Company frequently conducts Delaq Exhaust Temperature Booster Maintenance (P.M.) at floating intervals, only the yearly inspection is included in this plan, which satisfies the standard and does not overly burden the company with unnecessary record keeping in the spirit of the Paperwork Reduction Act. The yearly Preventative Maintenance Guide Form has been compiled using both the appropriate manufacturers specifications and general historical experience. Because the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide form is generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Delaq Exhaust Temperature Booster yearly inspection form – TBD

Addendum 4(b) - Baghouse Leak Detector System

Bag Leak Detector System specific Operation, Maintenance, and Quality Control:

The bag leak detector system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The bag leak detector system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because bag leak detectors have not been previously required or necessary, the company has no experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the **SECAL**

MELTER 3 - DELAQ UNIT OM&M PLAN

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MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(c) - Baghouse Lime Injection System

Baghouse Lime Injection System specific Operation, Maintenance, and Quality Control:

The baghouse lime injection system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The baghouse lime injection system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because baghouse lime injection systems of this type have not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(d) - Baghouse Inlet Temperature System

Baghouse Inlet Temperature System specific Operation, Maintenance, and Quality Control:

The baghouse inlet temperature system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The baghouse inlet temperature system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because baghouse inlet temperature systems of this type have not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

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Addendum 4(e) - Delaq Exhaust Temperature Booster System

Delaq Exhaust Temperature Booster system specific Operation, Maintenance, and Quality Control:

The Delaq Exhaust Temperature Booster system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The Delaq Exhaust Temperature Booster system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because Exhaust Temperature Booster systems of this type have not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 9(c)

Calculated SAPU emission limit and performance test results and supporting calculations demonstrating initial compliance for each EU:
TBD

Addendum 9(d)

Information and data demonstrating compliance for each EU with all applicable design, equipment, work practice or operational standards:
TBD

Addendum 9(e)

Monitoring requirements applicable to each EU in the SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t):
TBD

MELTER HEARTHS OM&M PLAN
Secondary Aluminum MACT Standard OM&M Plan

FORM 030211.DOC JLH REV 4-23-03

Definitions of acronyms as used in this plan:

CAAA = Clean Air Act Amendments

CE = Control Equipment

CFR = Code of Federal Regulations

CMMS = Computerized Maintenance Management System

EU = Emission Unit (defined by MACT as a group 1 furnace or an in-line fluxer; all others are affected sources)

OM&M = Operation, Maintenance, & Monitoring

P.M. = Preventative Maintenance

SAPU = Secondary Aluminum Processing Unit

SECAL MACT = SECondary ALuminum Maximum Achievable Control Technology

TPD = Tons per Day

HCP = Hearth Charging Practice

Floating Interval = an approximate period of time where the end point is variable; the subsequent approximate period of time begins anew at the end point of the previous time period

Group 2 Furnace = a furnace of any design that melts, holds, or processes only clean charge and that performs no *fluxing* or performs *fluxing* using only nonreactive, non-HAP generating gasses or agents.

General Procedures:

Only two HCP's are needed to prevent excess emissions of hazardous air pollutants from the production of aluminum in the Melter Hearths. Defining the Melter Hearths as group 2 furnaces (the affected sources) in this OM&M plan is consistent with the terms outlined in the Preambles of the SECAL MACT standard and Section 112 of the CAAA, and in guidance from the EPA Websites.

This facility is committed to making timely corrective actions to the Melter Hearths in times of excursion. Corrective actions may involve an investigation as to the reason, evaluation of the situation, and an appropriate chronological range of actions to remedy the situation. An excursion does not necessarily indicate a violation of an applicable requirement.

If an excursion occurs, one of three levels of action will be taken: (Level 1) the equipment/ Hearth Charging Practice causing the excursion shall be repaired/remedied in an expeditious manner, or if that cannot be accomplished in a reasonable period of time, (Level 2) the process generating the emissions shall be changed to minimize excess emissions of hazardous air pollutants, or if that cannot be accomplished in a reasonable period of time, (Level 3) commencement of a total orderly shutdown of all production processes that could cause excess hazardous air pollutant emissions. A timely or expeditious manner is the time necessary to determine the cause of the excursion and to correct it in a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to change or shut down the process without jeopardizing employee safety or damaging the process or control equipment.

MELTER HEARTHS OM&M PLAN
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Emission during a period of startup, shutdown, or cleaning of the affected source is not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Note that start-up of a hearth is a slow process that normally takes up to 10 days to complete. Run-time conditions will be monitored by the HCP's. Monitoring is not required during periods of time greater than one day when the source does not operate. HCP detected excursions or Malfunctions, including the date, time, and duration, will be recorded as outlined in the SSM Plan. Excess emissions will be reported as required by 40 CFR 63.1516(b) of the SECAL MACT standard.

Melter Hearths OM&M Plan Specifics:

Note: The layout convention below follows the OM&M outline sequence listed in 40 CFR 63.1510(b)

- (1) The following HCP's are used to determine compliance with the applicable emission limits for the Melter Hearths:
 - (a) Clean charge only.
 - (b) No reactive fluxing (except cover flux).

The operating levels or ranges for the above HCP's are established as follows:

- (c) Clean charge only – No more than 360 TPD in M-1 hearth or 408 TPD in M-2 or M-3 hearth.
 - (d) No reactive fluxing (except cover flux) – Zero reactive fluxing materials (except cover flux).
- (2) The monitoring schedule for each affected source HCP is as follows:
 - (a) Clean charge only – Each charge.
 - (b) No reactive fluxing (except cover flux) – Each fluxing operation.
- (3) Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits are as follows:
 - (a) Not applicable - Per 40CFR63.1505, there are no MACT emission limits for group 2 furnaces.
- (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: Calibration and Certification of accuracy of each monitoring device, according to the manufacturer's instructions are as follows:
 - (f) Not applicable. HCP's are themselves procedures. There are no electrical/mechanical devices or systems to maintain and no manufacturers instructions to follow.
- (5) Procedures for monitoring control device parameters are as follows:
 - (a) Not applicable. HCP's are themselves procedures. There are no control device parameters to monitor.

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- (6) Corrective actions to be taken when HCP's deviate from the specified limit or range, including:
 - A. Procedures to determine and record the cause of the deviation or excursion
 - B. The time the deviation or excursion began and ended
 - C. Procedures for recording the corrective action taken
 - D. The corrective action initiation and completion times/dates
 - (a) When a HCP malfunction occurs, Operations Personnel will, as soon as practicable, initiate corrective action.
 - (b) Operations Personnel will then perform appropriate diagnostic and troubleshooting functions on the equipment/hearth charging practice to determine the cause of the malfunction, and the proper corrective action will be taken as outlined in the Melter Hearth SSM Plan.
 - (c) All HCP malfunctions will be detailed and recorded (records kept by the Engineering Secretary) on the "Startup-Shutdown-Malfunction Log", including:
 - (i) The date of the malfunction.
 - (ii) The time of the alarm.
 - (iii) The time that corrective action was initiated.
 - (iv) Cause of the malfunction.
 - (v) Corrective action taken, including steps to minimize excess stack emissions if necessary.
 - (vi) Date and time that the corrective action was completed.
 - (vii) Total duration, in minutes or hours, of the malfunction.
- (7) Maintenance Schedule for each control device consistent with manufacturer's instructions and recommendations for routine and long-term maintenance:
 - (a) Not applicable. HCP's are procedures. There are no manufacturers instructions/recommendations.
- (8) Documentation of work instructions and pollution prevention measures used to achieve compliance for *group 1* furnaces *without* an add-on pollution control device:
 - (a) Not Applicable –The Melter Hearths are group 2 furnaces.
- (9) - (10) - (11) SAPU site-specific information:
 - (a) Not applicable - the Melter Hearths are not a part of any SAPU.

Emission Point ID Number: 04

Associated Equipment

Associated Emission Unit ID Numbers: 04a

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 04a

Emission Unit Description: Melting Furnace #1 (Natural Gas)

Raw Material/Fuel: Natural Gas

Rated Capacity: 34 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 02-A-008
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb./MMBtu

Authority for Requirement: Iowa DNR Construction Permit 02-A-008
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 02-A-008
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 6.5 lb./hr, 28.5 tons/year

Authority for Requirement: Iowa DNR Construction Permit 02-A-008

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- This burner shall be fired by natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 02-A-008

NESHAP:

- U.S. EPA Region 7 has granted a compliance extension for this emission unit. The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production - 567 IAC 23.1(4)"br" by March 23, 2004. Under Subpart RRR, the main hearth of this unit is regulated as a Group 2 Furnace, and the charge wells of this unit are regulated as Group 1 Furnaces. Excerpts of the Subpart RRR requirements are included in Section V of this permit.

Authority for Requirement: 40 CFR 63 Subpart RRR – Secondary Aluminum Production
567 IAC 23.1(4)"br"

Requirements of EPA-Issued Compliance Extension dated April 5, 2002:

This extension applies to Melting Furnace #1 (EU 04), Melting Furnace #2 (EU 05), and Melting Furnace #3 (EU 09).

Nichols Aluminum – Casting (NAC) will purchase and install a new baghouse to control Melters 1 through 3, or purchase and install additional control modules to control Melters 1 through 3, along with the Delacquer Kiln and Holding Furnaces. NAC will increase the flow capacity of the capture system. NAC will install a carbon injection system for dioxin/furan control or rearrange the ductwork system to inhibit dioxin/furan formation.

In the extension request dated March 11, 2002, NAC outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 31, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 30, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and
4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures specified in the November 7, 2001 letter must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities* will be allowed to be charged in the melter/holding furnaces during this time period.

* Per the 11/07/2001 Extension, "NAC facilities" means: Nichols Aluminum Casting supplies several Nichols Aluminum facilities with aluminum coils. Scrap generated by these facilities is returned to NAC to be remelted at the 2101 J.M. Morris Blvd. Facility in Davenport, Iowa.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 04/05/2002

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 70

Stack Diameter (inches): 78

Stack Exhaust Flow Rate (acfm): 16,444

Stack Temperature (°F): 520

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-008

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 05

Associated Equipment

Associated Emission Unit ID Numbers: 05a

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 05a

Emission Unit Description: Melting Furnace #2 (Natural Gas)

Raw Material/Fuel: Natural Gas

Rated Capacity: 34 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 02-A-009
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb./MMBtu

Authority for Requirement: Iowa DNR Construction Permit 02-A-009
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 02-A-009
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 6.5 lb./hr, 28.5 tons/year

Authority for Requirement: Iowa DNR Construction Permit 02-A-009

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- This burner shall be fired by natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 02-A-009

NESHAP:

- U.S. EPA Region 7 has granted a compliance extension for this emission unit. The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production - 567 IAC 23.1(4)"br" by March 23, 2004. Under Subpart RRR, the main hearth of this unit is regulated as a Group 2 Furnace, and the charge wells of this unit are regulated as Group 1 Furnaces. Excerpts of the Subpart RRR requirements are included in Section V of this permit.

Authority for Requirement: 40 CFR 63 Subpart RRR – Secondary Aluminum Production
567 IAC 23.1(4)"br"

Requirements of EPA-Issued Compliance Extension dated April 5, 2002:

This extension applies to Melting Furnace #1 (EU 04), Melting Furnace #2 (EU 05), and Melting Furnace #3 (EU 09).

Nichols Aluminum – Casting (NAC) will purchase and install a new baghouse to control Melters 1 through 3, or purchase and install additional control modules to control Melters 1 through 3, along with the Delacquer Kiln and Holding Furnaces. NAC will increase the flow capacity of the capture system. NAC will install a carbon injection system for dioxin/furan control or rearrange the ductwork system to inhibit dioxin/furan formation.

In the extension request dated March 11, 2002, NAC outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 31, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 30, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and
4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures specified in the November 7, 2001 letter must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities* will be allowed to be charged in the melter/holding furnaces during this time period.

* Per the 11/07/2001 Extension, "NAC facilities" means: Nichols Aluminum Casting supplies several Nichols Aluminum facilities with aluminum coils. Scrap generated by these facilities is returned to NAC to be remelted at the 2101 J.M. Morris Blvd. Facility in Davenport, Iowa.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 04/05/2002

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 70

Stack Diameter (inches): 78

Stack Exhaust Flow Rate (acfm): 16,444

Stack Temperature (°F): 520

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-009

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 08

Associated Equipment

Associated Emission Unit ID Numbers: 08

Emissions Control Equipment ID Number: CE08

Emissions Control Equipment Description: Mechanical Collector

Applicable Requirements

Emission Unit vented through this Emission Point: 08

Emission Unit Description: Three Stand Hot Mill

Raw Material/Fuel: Metal

Rated Capacity: 429,200 tons/year

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 90-A-389-S1
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.021 gr./scf, 10.65 lb./hr, 46.65 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 90-A-389-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.021 gr./scf, 10.65 lb./hr, 46.65 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 90-A-389-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- This rolling mill is limited to a maximum throughput of 429,200 tons per 12-month rolling period.

Reporting & Record keeping:

All records shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- Record the amount of aluminum processed in this rolling mill, in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 90-A-389-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 70

Stack Diameter (inches): 96

Stack Exhaust Flow Rate (acfm): 63,500

Stack Temperature (°F): 90

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permit 90-A-389-S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter

1st Stack Test to be Completed by (date) – June 16, 2005

Test Method – Iowa Compliance Sampling Manual⁽¹⁾
⁽¹⁾ or an approved alternative

Authority for Requirement - 567 IAC 22.108(3)"b"

Pollutant – PM₁₀

1st Stack Test to be Completed by (date) – June 16, 2005

Test Method – 201A with 202, 40 CFR 51⁽¹⁾

⁽¹⁾ or an approved alternative

Authority for Requirement - 567 IAC 22.108(3)"b"

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter/PM₁₀

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

OPERATION & MAINTENANCE PLAN NAC THREE STAND HOT MILL

Facility:	<u>Nichols Aluminum Casting (NAC)</u>
Name of Unit:	Three Stand Hot Mill
Control Technology:	Control Equipment No. CE08 Busch Mechanical Collector No. Y-1459
Particulate Control:	Mechanical Collector
Permit Number:	90-A-389-S1

A. Monitoring Guidelines

This facility is committed to making timely corrective actions to this unit in times of excursion where the indicators are out of range. Corrective actions may involve an investigation as to the reason, evaluation of situation, and appropriate actions to remedy the situation.

Although emissions from this source are highly unlikely, if emissions occur, either the control equipment causing the excess shall be repaired in an expeditious manner or the process generating the emissions shall be shut down within a reasonable amount of time. An expeditious manner is the time necessary to determine the cause of the emissions and to correct it in a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process or control equipment.

Emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions.

B. Monitoring Methods and Corrective Actions

This source includes all emissions from the Three Stand Hot Mill stack.

C. Monitoring and Operating Limits

See Appendix C for BUSCH SYSTEM Preventative Maintenance (P.M.) conducted quarterly. Quarterly cleaning flushes any material collected to the dirty side of the mill coolant tank for subsequent filtration and handling.

D. Quality Control

1. Operation and Preventative Maintenance implementation will be available upon request and will include Preventative Maintenance (P.M.) List (See Appendix D.)
2. Maintenance records will be audited periodically.

Appendix D: Three Stand Hot Mill Mechanical Collector Task Instructions List

- HM16 BUSCH SYSTEM QUARTERLY P.M.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 09

Associated Equipment

Associated Emission Unit ID Numbers: 09a

Emissions Control Equipment ID Number: CE09a

Emissions Control Equipment Description: Low NO_x Burner

Applicable Requirements

Emission Unit vented through this Emission Point: 09a

Emission Unit Description: Melting Furnace #3 (Natural Gas)

Raw Material/Fuel: Natural Gas

Rated Capacity: 34 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 02-A-010
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb./MMBtu

Authority for Requirement: Iowa DNR Construction Permit 02-A-010
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 02-A-010
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 7.2 lb./hr, 31.4 tons/year

Authority for Requirement: Iowa DNR Construction Permit 02-A-010

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- This burner shall be fired by natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 02-A-010

NESHAP:

- U.S. EPA Region 7 has granted a compliance extension for this emission unit. The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production - 567 IAC 23.1(4)"br" by March 23, 2004. Under Subpart RRR, the main hearth of this unit is regulated as a Group 2 Furnace, and the charge wells of this unit are regulated as Group 1 Furnaces. Excerpts of the Subpart RRR requirements are included in Section V of this permit.

Authority for Requirement: 40 CFR 63 Subpart RRR – Secondary Aluminum Production
567 IAC 23.1(4)"br"

Requirements of EPA-Issued Compliance Extension dated April 5, 2002:

This extension applies to Melting Furnace #1 (EU 04), Melting Furnace #2 (EU 05), and Melting Furnace #3 (EU 09).

Nichols Aluminum – Casting (NAC) will purchase and install a new baghouse to control Melters 1 through 3, or purchase and install additional control modules to control Melters 1 through 3, along with the Delacquer Kiln and Holding Furnaces. NAC will increase the flow capacity of the capture system. NAC will install a carbon injection system for dioxin/furan control or rearrange the ductwork system to inhibit dioxin/furan formation.

In the extension request dated March 11, 2002, NAC outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 31, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 30, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and
4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures specified in the November 7, 2001 letter must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities* will be allowed to be charged in the melter/holding furnaces during this time period.

* Per the 11/07/2001 Extension, "NAC facilities" means: Nichols Aluminum Casting supplies several Nichols Aluminum facilities with aluminum coils. Scrap generated by these facilities is returned to NAC to be remelted at the 2101 J.M. Morris Blvd. Facility in Davenport, Iowa.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 04/05/2002

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 70

Stack Diameter (inches): 78

Stack Exhaust Flow Rate (acfm): 16,444

Stack Temperature (°F): 520

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-010

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 13

Associated Equipment

Associated Emission Unit ID Numbers: 13

Emissions Control Equipment ID Number: CE13

Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 13

Emission Unit Description: Two (2) Rotary Barrel Furnaces/Assoc. Processes

Raw Material/Fuel: Natural Gas and Metal

Rated Capacity: 20 MMBtu/hour Natural Gas

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 0%

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.006 gr./dscf

Averaging Period: 3 test runs

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P

Pollutant: PM₁₀

Emission Limit(s): 8.6 lbs./hr

Averaging Period: 24 hour average

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P

Pollutant: Particulate Matter

Emission Limit(s): 0.004 gr./dscf

Averaging Period: 3 test runs

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P

Pollutant: Volatile Organic Compound (VOC)

Emission Limit(s): 39.4 tons/year

Averaging Period: 12 month rolling average

VOC Month total emissions = (batches per month) x (emissions factor derived from the most recent stack test)

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- A. Only natural gas shall be used as fuel in an enriched oxygen combustion atmosphere for the two rotary barrel furnaces.
- B. Only dross and inspected clean aluminum scrap* shall be melted in the two furnaces.

* Iowa DNR PSD Permit 98-A-468P was issued in 1998, one year prior to the promulgation of 40 CFR 63 Subpart RRR – Secondary Aluminum MACT. The term "clean aluminum scrap" in this PSD Permit was not intended by the Iowa DNR to meet the definition of "clean charge" in Subpart RRR under 63.1503. Item B above does not in itself preclude the processing of aluminum scrap that contains paint, light ink, or other similar organic materials that may be part of the scrap material. Materials such as PVC, plastisol, vinyl, plastic, or insulation coatings, dirt and other foreign contamination will continue to be part of Nichols Aluminum's material quality program and not be intentionally charged at the rotary barrel furnaces. This clarification of the term "clean aluminum scrap" in Iowa DNR PSD Permit 98-A-468P and in this Title V Operating Permit does not relieve Nichols Aluminum of their responsibility to comply with the associated requirements of the Secondary Aluminum MACT.

Reporting & Record keeping:

- A. Inspections shall be conducted for every truckload on the loading docks. All inspections must be recorded, and the record shall include aluminum scrap source, type, Nichols' rating, etc. to ensure aluminum scrap quality.

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 75

Stack Diameter (inches): 94

Stack Exhaust Flow Rate (acfm): 237,500

Stack Temperature (°F): 275

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR PSD Permit 98-A-468P

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Continuous Emissions Monitoring:

- A. After completion of the initial compliance test, **VOC** emission rates shall be verified by the owner or operator every four (4) months by stack test using the method and procedures specified in Iowa DNR PSD Permit 98-A-468P Condition 9 and Condition 10⁽¹⁾. Test reports should be sent to the IDNR no later than 30 days following the test date.

⁽¹⁾ Air Pollutant - VOC

Test Method – 40 CFR 60, Appendix A, Method 25A⁽²⁾

- ⁽²⁾ VOC test shall cover no less than three entire batch periods for both furnaces. An emission factor with unit such as lbs. of VOC per batch, lbs. of VOC per tons of scrap, etc., whichever is more conservative in PTE calculation, shall be derived from the tests.

After two (2) years of periodic monitoring stack test the owner or operator may petition the Iowa Air Quality Bureau at any time to discontinue the periodic monitoring. Summary of the reports shall be submitted at the time of such a petition.

- B. A Continuous Monitoring System (CEM) for measuring the **Particulate Matter** emissions discharged into the atmosphere from the source shall be installed, operated, calibrated, and maintained during all periods of operation of the source except for the continuous monitoring system breakdowns, calibration checks, repairs and zero and span adjustments. The CEM shall be installed and calibrated before and operated during the initial stack tests for PM/PM₁₀. All particulate matter measured shall be reported as PM₁₀ to demonstrate compliance with the 24-hour rolling emission limit.

After three months operation of the CEM the owner operator may petition the Iowa Air Quality Bureau at any time to discontinue the operation of the CEM. An analysis of correlation between baghouse pressure drop and PM₁₀ emissions and all hourly data records of the CEM shall be submitted at the time of such a petition.

An owner or operator of the equipment and associated control equipment may elect to perform periodic stack tests and daily opacity observation in lieu of the above requirement. If this alternative is chosen, the owner or operator shall:

1. Verify **PM₁₀** emission rates every four (4) months by stack testing using the method and procedures specified in Iowa DNR PSD Permit 98-A-468P Condition 10^(A) after completion of the initial compliance test. Test reports should be set to the IDNR no later than 30 days following the test date.

^(A) Air Pollutant – PM₁₀

Test Method – 40 CFR 51, Appendix M, Method 201A with 202

After two (2) years of the periodic monitoring stack tests the owner or operator may petition the Iowa Air Quality Bureau at any time to discontinue the periodic monitoring. Summary of the reports shall be submitted at the time of such a petition.

2. Install a Continuous **Opacity** Monitoring System (COMS). The COMS shall be operated, and maintained during all periods of operation except for COMS breakdowns and repairs. Operation of the COMS shall be in conformance with 40 CFR 60.13 to ensure that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way.

Or, the owner or operator may:

3. Perform one daily opacity observation during normal operation in accordance with procedures specified in 40 CFR 60, Appendix A, Method 9^(B) to demonstrate that the baghouse is operated in compliance with the opacity limit specified in the permit. If visible emissions are observed other than start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard set forth in the permit. *(Note: Per David Phelps, Construction Permit Section Supervisor's), letter of 5/21/99, it was determined if no visible emissions for that source were observed, then the full Method 9 readings would not be required. However, if visible emissions were noticed, then the full Method 9 readings would need to be taken to document the opacity.)*

^(B) Air Pollutant - Opacity
Test Method – 40 CFR Appendix A, Method 9

4. Any events of the baghouse malfunction shall be recorded. All opacity observation data recorded shall be kept for a minimum of five (5) years from the date of recording and shall be available at the plant during normal business hours.

Authority for Requirement – Iowa DNR PSD Permit 98-A-468P

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter/PM₁₀

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

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Definitions of acronyms as used in this plan:

CAAA = Clean Air Act Amendments

CE = Control Equipment

CFR = Code of Federal Regulations

CPMS = Continuous Parameter Monitoring System

CMMS = Computerized Maintenance Management System

EU = Emission Unit (defined by MACT as a group 1 furnace or an in-line fluxer; all others are affected sources)

OM&M = Operation, Maintenance, & Monitoring

P.M. = Preventative Maintenance

RBF = Rotary Barrel Furnace

RBF Unit = (2) RBF's, a Rotary Dross Cooler, & material bins all common ducted to a CE Baghouse

SAPU = Secondary Aluminum Processing Unit

SECAL MACT = SECondary ALuminum Maximum Achievable Control Technology

SSM = Startup, Shutdown, Malfunction

Floating Interval = an approximate period of time where the end point is variable; the subsequent approximate period of time begins anew at the end point of the previous time period

Group 1 Furnace = a furnace of any design that melts, holds, or processes aluminum that contains paint, lubricants, coatings, or other foreign materials with or without reactive fluxing, or processes clean charge with reactive fluxing

TBD = To Be Determined

General Procedures:

Only one item, the baghouse, is needed to prevent excess emissions of hazardous air pollutants from the production of aluminum in the RBF Unit. Defining the pollution control equipment as the affected source in this OM&M plan is consistent with the terms outlined in the Preambles of the SECAL MACT standard and Section 112 of the CAAA, and in guidance from the EPA Websites.

This facility is committed to making timely corrective actions to this unit in times of excursion where the indicators are out of range. Corrective actions may involve an investigation as to the reason, evaluation of the situation, and an appropriate chronological range of actions to remedy the situation. Baghouse bag leak detector system alarms, baghouse lime injection system alarms, and baghouse inlet temperature system alarms may be excursions. An excursion does not necessarily indicate a violation of an applicable requirement.

If an excursion occurs, one of three levels of action will be taken: (Level 1) the control equipment causing the excursion shall be repaired in an expeditious manner, or if that cannot be accomplished in a reasonable period of time, (Level 2) the process generating the emissions shall be changed to minimize excess emissions of hazardous air pollutants, or if that cannot be accomplished in a reasonable period of time, (Level 3) commencement of a total orderly shutdown of all production processes that cause excess hazardous air pollutant emissions. A timely or expeditious manner is the time necessary to determine the

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cause of the excursion and to correct it in a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to change or shut down the process without jeopardizing employee safety or damaging the process or control equipment.

Emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Run-time conditions will be monitored by the CPMS. Monitoring is not required during periods of time greater than one day when the source does not operate. CPMS detected excursions or malfunctions, including the date, time, and duration, will be recorded as outlined in the SSM Plan. Excess emissions will be reported as required by 40 CFR 63.1516(b) of the SECAL MACT standard.

RBF OM&M Plan Specifics:

Note: The layout convention below follows the OM&M outline sequence listed in 40 CFR 63.1510(b)

- (1) The following process and control device parameters are monitored to determine compliance with the applicable emission limits for the RBF unit:
 - (a) Baghouse leak detector alarm system – automated system to assure that the baghouse bags are in good working condition.
 - (b) Baghouse lime injection alarm system – automated system to assure that the baghouse lime system is functioning properly.
 - (c) Baghouse inlet temperature alarm system – automated system to assure that the baghouse inlet temperature is within allowable parameter range.

The operating levels or ranges for the above parameters are established as follows:

- (a) Baghouse leak detector alarm system – TBD
 - (b) Baghouse lime injection alarm system – TBD
 - (c) Baghouse inlet temperature alarm system – TBD
- (2) The monitoring schedule for each affected source (control device) is as follows:
 - (a) Baghouse leak detector alarm system – automated system
 - (b) Baghouse lime injection alarm system – automated system
 - (c) Baghouse inlet temperature alarm system – automated system
- (3) Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits are as follows:
 - (a) Baghouse system – Addendum 3(a)
Note: the proper operation and maintenance of the baghouse leak detector alarm system, the baghouse lime injection alarm system, and the baghouse inlet temperature alarm system are incorporated in item (4) below.

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- (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: Calibration and Certification of accuracy of each monitoring device, according to the manufacturer's instructions are as follows:
- (a) General Operation, Maintenance, and Quality Control of Continuous Parameter Monitoring Systems:
 - (i) This facility will endeavor to maintain and operate each CPMS in a manner consistent with good air pollution practices.
 - (ii) Every attempt will be made to repair CPMS detected malfunctions as outlined in the SSM (Startup, Shutdown, Malfunction) Plan, and reported in the semiannual startup, shutdown, and malfunction report required by the SECAL MACT standard. Any actions not consistent with the SSM Plan will be recorded and reported in the semiannual excess emissions/summary report as required by the SECAL MACT standard (records kept by the Engineering Secretary).
 - (b) Baghouse leak detector alarm system – Addendum 4(b)
 - (c) Baghouse lime injection alarm system – Addendum 4(c)
 - (d) Baghouse inlet temperature alarm system – Addendum 4(d)
- (5) Procedures for monitoring control device parameters are as follows:
- (a) Control device parameter monitoring is done by automation. Should the monitoring system detect a malfunction, it automatically sends an alarm signal to plant operations personnel who will respond and initiate corrective action as outlined in the unit SSM Plan.
 - (b) Additionally, preventative maintenance procedures are performed that monitor control device parameters as outlined and incorporated in item (4) above.
- (6) Corrective actions to be taken when add-on control device parameters deviate from the specified limit or range, including:
- A. Procedures to determine and record the cause of the deviation or excursion
 - B. The time the deviation or excursion began and ended
 - C. Procedures for recording the corrective action taken
 - D. The corrective action initiation and completion times/dates
- (a) When a monitored parameter malfunction alarm occurs, Operations Personnel will, as soon as practicable, initiate corrective action. Note that SECAL MACT requires initiation of corrective action within one hour of the alarm.
 - (b) Operations Personnel will then perform appropriate diagnostic and troubleshooting functions on the equipment to determine the cause of the malfunction, and the proper corrective action will be taken as outlined in the unit SSM Plan.
 - (c) All monitored parameter malfunctions will be detailed and recorded (records kept by the Engineering Secretary) on the "Startup-Shutdown-Malfunction Log", including:
 - (i) The date of the malfunction.
 - (ii) The time of the alarm.
 - (iii) The time that corrective action was initiated.
 - (iv) Cause of the malfunction.
 - (v) Corrective action taken, including steps to minimize excess stack emissions if necessary.
 - (vi) Date and time that the corrective action was completed.
 - (vii) Total duration, in minutes or hours, of the malfunction.

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- (7) Maintenance Schedule for each control device consistent with manufacturer's instructions and recommendations for routine and long-term maintenance:
 - (a) Baghouse leak detector alarm system – Monthly and yearly floating intervals
 - (b) Baghouse lime injection alarm system – Monthly and yearly floating intervals
 - (c) Baghouse inlet temperature alarm system – Monthly and yearly floating intervals

- (8) Documentation of work instructions and pollution prevention measures used to achieve compliance for *group 1* furnaces *without* an add-on pollution control device:
 - (a) Not Applicable – All RBF group 1 furnaces have an add-on pollution control device

- (9) The following SAPU site-specific information is listed below:
 - (a) Identification of each EU (emission unit) in the SAPU:
 - (i) Emission unit 04 = Melter 1 charge wells
 - (ii) Emission unit 05 = Melter 2 charge wells
 - (iii) Emission unit 06 = Holder 1
 - (iv) Emission unit 07 = Holder 2
 - (v) Emission unit 09 = Melter 3 charge wells
 - (vi) Emission unit 13a = Rotary Barrel Furnace 1
 - (vii) Emission unit 13b = Rotary Barrel Furnace 2
 - (viii) Emission unit 22 = Degasser
 - (ix) Note: The media (Burner Ball Shaker) cleaning system is common ducted to the M-1&2/ H-1&2/ Degasser baghouse but is not an emission unit as defined in the SECAL MACT standard.
 - (x) Note: The Delacquering system is common ducted to the Melter 3 - Delaq baghouse but is not an emission unit as defined in the SECAL MACT standard.
 - (xi) Note: The Rotary Dross Cooler and the RBF material bins are common ducted to the RBF baghouse but are not Emission Units as defined in the SECAL MACT standard.
 - (b) The specific control technology or pollution prevention measure to be used on each EU and the date of its installation or application:
 - (i) All M-1 & 2 / H-1 & 2 / Degasser Unit EU's (EU04, EU05, EU06, EU07, EU22) are common ducted to EP23 lime injected baghouse, which, along with a bag leak detection system, a lime injection detection system, and an inlet temperature monitoring system, were installed/approved on date - TBD.
 - (ii) EU 09 was installed/approved on 8-5-94 and is common ducted to EP03 lime injected baghouse which was installed/approved on 11-5-90. A bag leak detection system and an inlet temperature monitoring system were added to the baghouse (installed /approved) on date-TBD
 - (iii) EU 13a & EU 13b are common ducted to EP13 lime injected baghouse installed/approved Oct. 1998. A bag leak detection system, an updated lime injection system, and an inlet temperature monitoring system were added to the baghouse (installed /approved) on March 23, 2003.
 - (c) Calculated SAPU emission limit and performance test results and supporting calculations demonstrating initial compliance for each EU:
 - (i) Listed in Addendum 9(c)
 - (d) Information and data demonstrating compliance for each EU with all applicable design, equipment, work practice or operational standards:
 - (i) Listed in Addendum 9(d)

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- (e) Monitoring requirements applicable to each EU in the SAPU and monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t):
 - (i) Listed in Addendum 9(e)
- (10) The SAPU compliance procedures within this OM&M plan do not contain any of the following provisions:
 - (a) Any averaging among emissions of differing pollutants
 - (b) The inclusion of any affected sources other than EU's in this SAPU, except common ducted sources as allowed by and approved by the permitting authority with the acceptance of this plan.
 - (c) The inclusion of any EU while it is shutdown
 - (d) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations
- (11) To revise the SAPU compliance provisions within this OM&M plan prior to the end of the permit term, the owner or operator will submit a request to the applicable permitting authority containing the information required by paragraph (9) of this plan and obtain approval of the applicable permitting authority prior to implementing any revisions.

Addendum 3(a) - Baghouse System

Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits:

The Secondary Aluminum MACT Standard requires inspection of each capture/collection and closed vent system at least once each calendar year. Although the Company frequently conducts Baghouse Preventative Maintenance (P.M.) at floating intervals, only the yearly inspection is included in this plan, which satisfies the standard and does not overly burden the company with unnecessary record keeping in the spirit of the Paperwork Reduction Act. The Baghouse Yearly Preventative Maintenance Guide Form has been compiled using both the appropriate manufacturers specifications and general historical experience. Because the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide form is generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

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Addendum 4(b) - Baghouse Leak Detector System

Bag Leak Detector System specific Operation, Maintenance, and Quality Control:

The bag leak detector system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The bag leak detector system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because bag leak detectors have not been previously required or necessary, the company has no experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(c) - Baghouse Lime Injection System

Baghouse Lime Injection System specific Operation, Maintenance, and Quality Control:

The baghouse lime injection system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The baghouse lime injection system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because baghouse lime injection systems of this type have not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

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Addendum 4(d) - Baghouse Inlet Temperature System

Baghouse Inlet Temperature System specific Operation, Maintenance, and Quality Control:

The baghouse inlet temperature system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The baghouse inlet temperature system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because baghouse inlet temperature systems of this type have not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 9(c)

Calculated SAPU emission limit and performance test results and supporting calculations demonstrating initial compliance for each EU:

TBD

Addendum 9(d)

Information and data demonstrating compliance for each EU with all applicable design, equipment, work practice or operational standards:

TBD

Addendum 9(e)

Monitoring requirements applicable to each EU in the SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t):

TBD

Emission Point ID Number: 15a

Associated Equipment

Associated Emission Unit ID Numbers: 15

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 15

Emission Unit Description: Refractory Curing Oven

Raw Material/Fuel: Natural Gas

Rated Capacity: 0.002 MMcf/hour

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.308 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 96-A-287

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf, 0.308 lb./hr, 1.35 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 96-A-287
567 IAC 23.3(2)"a"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.20 lb./hr, 0.88 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 96-A-287

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 19.33

Stack Diameter (inches): 12

Stack Exhaust Flow Rate (scfm): 354

Stack Temperature (°F): 1,000

Vertical, Unobstructed Discharge Required: Yes ☐ No ☒

Authority for Requirement: Iowa DNR Construction Permit 96-A-287

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 15b

Associated Equipment

Associated Emission Unit ID Numbers: 15

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 15

Emission Unit Description: Refractory Curing Oven

Raw Material/Fuel: Natural Gas

Rated Capacity: 0.002 MMcf/hour

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.308 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 96-A-287

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf, 0.308 lb./hr, 1.35 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 96-A-287
567 IAC 23.3(2)"a"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.20 lb./hr, 0.88 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 96-A-287

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 19.33

Stack Diameter (inches): 12

Stack Exhaust Flow Rate (scfm): 354

Stack Temperature (°F): 1,000

Vertical, Unobstructed Discharge Required: Yes ☐ No ☒

Authority for Requirement: Iowa DNR Construction Permit 96-A-287

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 16F (Vents Internally)

Associated Equipment

Associated Emission Unit ID Numbers: 16

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 16

Emission Unit Description: Direct Fired Heaters >1.8 MMBtu/hr

Raw Material/Fuel: Natural Gas

Rated Capacity: 0.048515 MMcf/hour

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 18F (Vents Internally)

Associated Equipment

Associated Emission Unit ID Numbers: 18

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 18

Emission Unit Description: 2 Dross Presses

Raw Material/Fuel: Metal Melted

Rated Capacity: 20 tons/hour

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 20

Associated Equipment

Associated Emission Unit ID Numbers: 20

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 20

Emission Unit Description: Caster Water Pump Backup Engine

Raw Material/Fuel: Diesel

Rated Capacity: 270 hp-hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb./MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

Reporting & Record keeping:

The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

- The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 21

Associated Equipment

Associated Emission Unit ID Numbers: 21

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: 21

Emission Unit Description: Fire System Engine Combustion

Raw Material/Fuel: Diesel

Rated Capacity: 93 hp-hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb./MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

- No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

Reporting & Record keeping:

The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

- The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: Fugitives

Associated Equipment

Associated Emission Unit ID Numbers: FUG MELT, LGT

Emissions Control Equipment ID Number: none

Applicable Requirements

Emission Unit vented through this Emission Point: FUG MELT

Emission Unit Description: Fugitives From Melters (Demagging, Skim)

Raw Material/Fuel: Metal and Natural Gas

Rated Capacity: 36.735 tons/hour Metal

Emission Unit vented through this Emission Point: LGT

Emission Unit Description: Fugitive Losses From Volatile Liquids

Raw Material/Fuel: Miscellaneous Organic Liquids

Rated Capacity: 0.001141 ton/hour

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 23

Associated Equipment

Associated Emission Unit ID Numbers: 04, 05, 06, 06a, 07, 07a, 14, 22

Emissions Control Equipment ID Number: CE23

Emissions Control Equipment Description: Lime Injected Baghouse

Applicable Requirements

EU = Emission Unit

EU	EU Description	Raw Material	Rated Capacity
04	Melting Furnace #1	Metal	17.00 tons/hr
05	Melting Furnace #2	Metal	17.00 tons/hr
06	Holding Furnace #1	Metal	87.50 tons/hr
06a	Holding Furnace #1 (Natural Gas)	Natural Gas	0.024 MMcf/hr
07	Holding Furnace #2	Metal	87.50 tons/hr
07a	Holding Furnace #2 (Natural Gas)	Natural Gas	0.024 MMcf/hr
14	Burner Ball Shaker	Burner Balls	1.00 tons/hr
22	Holding Furnace Degasser	Metal	49.00 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %⁽¹⁾

⁽¹⁾ Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file and "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 02-A-491
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 11.14 lbs./hr, 48.8 tons/year

Authority for Requirement: Iowa DNR Construction Permit 02-A-491

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 02-A-491
567 IAC 23.3(2)"a"

Pollutant: Particulate Matter
Emission Limit(s): 11.14 lbs./hr, 48.8 tons/year
Authority for Requirement: Iowa DNR Construction Permit 02-A-491

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 5.8 lbs./hr, 25.2 tons/year
Authority for Requirement: Iowa DNR Construction Permit 02-A-491

Pollutant: Volatile Organic Compound (VOC)
Emission Limit(s): 4.8 lbs./hr, 21.0 tons/year
Authority for Requirement: Iowa DNR Construction Permit 02-A-491

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Equipment Capacity:

- A. Melter 1 (EU 04) and Melter 2 (EU 05) are each limited to a maximum throughput of 408 tons per day and 148,900 tons per year of aluminum.
- B. Holding Furnace 1 (EU 06) and Holding Furnace 2 (EU 07) are each limited to a maximum throughput of 87.5 tons per hour of aluminum.
- C. Holding Furnace 1 (EU 06) and Holding Furnace 2 (EU 07) shall be fired by natural gas only.
- D. The Holding Furnace Degasser (EU 22) is limited to a maximum throughput of 1,176 tons per day of aluminum.
- E. The Burner Ball Shaker (EU 14) is limited to a maximum throughput of 24 tons per day.
- F. Baghouse CE23 shall use lime injection and be maintained according to the manufacturer's specifications.

Reporting and Recordkeeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of aluminum processed in each melter, in tons per day. Calculate and record monthly and 12-month rolling totals.

- B. Record the amount of aluminum processed in the holding furnace degasser, in tons per day. Calculate and record monthly and 12-month rolling totals.
- C. Maintain a record of maintenance performed on Baghouse CE23.

Authority for Requirement: Iowa DNR Construction Permit 02-A-491

NESHAP:

- U.S. EPA Region 7 has granted two separate compliance extensions for these emission units. The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production - 567 IAC 23.1(4)"br" by March 23, 2004. These units are regulated under Subpart RRR as the following:

EP	EU	EU Description	Regulated As
23	04	Melting Furnace #1	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
23	05	Melting Furnace #2	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
23	06	Holding Furnace #1	Group 1 Furnace
23	06a	Holding Furnace #1 (Natural Gas)	Group 1 Furnace
23	07	Holding Furnace #2	Group 1 Furnace
23	07a	Holding Furnace #2 (Natural Gas)	Group 1 Furnace
23	22	Holding Furnace Degasser	In-Line Fluxer

Excerpts of the Subpart RRR requirements are included in Section V of this permit.

Authority for Requirement: 40 CFR 63 Subpart RRR –Secondary Aluminum Production
567 IAC 23.1(4)"br"

Requirements of EPA-Issued Compliance Extension dated November 7, 2001:

This extension applies to Holding Furnace #1 (EU 06), Holding Furnace #2 (EU 07), and Holding Furnace Degasser (EU 22).

In the extension request dated September 25, 2001, Nichols Aluminum – Casting (NAC) outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 5, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 13, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and

4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities will be allowed to be charged in the melter/holding furnaces during this time period.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 11/07/2001

Requirements of EPA-Issued Compliance Extension dated April 5, 2002:

This extension applies to Melting Furnace #1 (EU 04), Melting Furnace #2 (EU 05), and Melting Furnace #3 (EU 09).

Nichols Aluminum – Casting (NAC) will purchase and install a new baghouse to control Melters 1 through 3, or purchase and install additional control modules to control Melters 1 through 3, along with the Delacquer Kiln and Holding Furnaces. NAC will increase the flow capacity of the capture system. NAC will install a carbon injection system for dioxin/furan control or rearrange the ductwork system to inhibit dioxin/furan information.

In the extension request dated March 11, 2002, NAC outlined a schedule for achieving compliance with the secondary aluminum standard. The steps outlined and the expected completion dates are as follows:

1. By May 31, 2002, contracts for emission control systems or process changes for emission control will be awarded, or purchase of component parts to accomplish emission control or process changes;
2. By December 31, 2002, on-site construction, installation of emission control equipment, or a process change is to be initiated;
3. By June 30, 2003, on-site construction, installation of emission control equipment, or a process change is to be completed; and
4. By March 23, 2004, final compliance is to be achieved, and a Notification of Compliance Report Submitted;

As a condition of this compliance extension, in accordance with 40 CFR § 63.6(i)(11), NAC will submit progress reports on the installation of the emission control equipment. These progress reports will be sent within ten days of the last day of the month of the milestone dates specified in the compliance schedule and will detail the status of each affected facility and/or control system. The reports will be submitted to Richard W. Tripp, U.S. EPA, Region VII, ARTD/APCO, 901 N. 5th Street, Kansas City, Kansas 66101. A copy should also be sent to Jeff Theobald, Air Quality Bureau, Iowa Department of Natural Resources, 7900 Hickman Road, Urbandale, Iowa 50322.

The following measures specified in the November 7, 2001 letter must be taken during the extended compliance period to help protect the environment. The measures must be in-place from issuance of this extension request until the control system is operational. The in-line degasser and melter/holding furnaces will be operated without reactive fluxes. The melter/holding furnaces will use only clean charge or run-around generated by NAC. Run-around from other NAC facilities will be allowed to be charged in the melter/holding furnaces during this time period.

Authority for Requirement: U.S. EPA Region VII Compliance Extension Issued 04/05/2002

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet from the ground): 80

Stack Diameter (inches): 115

Stack Exhaust Flow Rate (acfm): 100,000 – 260,000

Stack Temperature (°F): 325

Vertical, Unobstructed Discharge Required: Yes ☒ No ☐

Authority for Requirement: Iowa DNR Construction Permit 02-A-491

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – PM₁₀

1st Stack Test to be Completed by (date) – *within 60 days of achieving maximum production rate and no later than 180 days after the initial startup date of the proposed equipment.*

Test Method – 40 CFR 51, Appendix M, 201A with 202⁽¹⁾
⁽¹⁾ or an approved alternative

Test Run Time – 4.5 hours

Authority for Requirement – Iowa DNR Construction Permit 02-A-491

Pollutant – Opacity

1st Stack Test to be Completed by (date) – *within 60 days of achieving maximum production rate and no later than 180 days after the initial startup date of the proposed equipment.*

Test Method – 40 CFR 60, Appendix A, Method 9⁽¹⁾
⁽¹⁾ or an approved alternative

Test Run Time – 1 hour

Authority for Requirement - Iowa DNR Construction Permit 02-A-491

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter/PM₁₀

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

M-1 & 2 / H-1 & 2 / DEGASSER SAPU OM&M PLAN

Operation, Maintenance, & Monitoring Plan Secondary Aluminum MACT Standard

020408 JLH rev 2-04-03

Definitions of acronyms as used in this plan:

CAAA = Clean Air Act Amendments

CE = Control Equipment

CFR = Code of Federal Regulations

CPMS = Continuous Parameter Monitoring System

CMMS = Computerized Maintenance Management System

EU = Emission Unit (defined by MACT as a group 1 furnace or an in-line fluxer; all others are affected sources)

OM&M = Operation, Maintenance, & Monitoring

P.M. = Preventative Maintenance

SAPU = Secondary Aluminum Processing Unit

SECAL MACT = SECondary ALuminum Maximum Achievable Control Technology

Floating Interval = an approximate period of time where the end point is variable; the subsequent approximate period of time begins anew at the end point of the previous time period

Group 1 Furnace = a furnace of any design that melts, holds, or processes aluminum that contains paint, lubricants, coatings, or other foreign materials with or without reactive fluxing, or processes clean charge with reactive fluxing

TBD = To Be Determined

General Procedures:

Only one item, the baghouse, is needed to prevent excess emissions of hazardous air pollutants from the production of aluminum in the M-1 & 2 / H-1 & 2 / Degasser Unit. Defining the pollution control equipment as the affected sources in this OM&M plan is consistent with the terms outlined in the Preambles of the SECAL MACT standard and Section 112 of the CAAA, and in guidance from the EPA Websites.

This facility is committed to making timely corrective actions to this Unit in times of excursion where the indicators are out of range. Corrective actions may involve an investigation as to the reason, evaluation of the situation, and an appropriate chronological range of actions to remedy the situation. Baghouse bag leak detector system alarms, baghouse lime injection system alarms, and baghouse inlet temperature system alarms are considered by the facility as excursions. An excursion does not necessarily indicate a violation of an applicable requirement.

If an excursion occurs, one of three levels of action will be taken: (Level 1) the control equipment causing the excursion shall be repaired in an expeditious manner, or if that cannot be accomplished in a reasonable period of time, (Level 2) the process generating the emissions shall be changed to minimize excess emissions of hazardous air pollutants, or if that cannot be accomplished in a reasonable period of time, (Level 3) commencement of a total orderly shutdown of all production processes that could cause excess hazardous air pollutant emissions. A timely or expeditious manner is the time necessary to determine the cause of the excursion and to correct it in a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to change or shut down the process without jeopardizing employee safety or damaging the process or control equipment.

M-1 & 2 / H-1 & 2 / DEGASSER SAPU OM&M PLAN

Operation, Maintenance, & Monitoring Plan Secondary Aluminum MACT Standard

020408 JLH rev 2-04-03

Emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Run-time conditions will be monitored by the CPMS. Monitoring is not required during periods of time greater than one day when the source does not operate. CPMS detected excursions or malfunctions, including the date, time, and duration, will be recorded as outlined in the SSM Plan. Excess emissions will be reported as required by 40 CFR 63.1516(b) of the SECAL MACT standard.

M-1 & 2 / H-1 & 2 / Degasser Unit OM&M Plan Specifics:

Note: The layout convention below follows the OM&M outline sequence listed in 40 CFR 63.1510(b)

- (1) The following process and control device parameters are monitored to determine compliance with the applicable emission limits for the M-1 & 2 / H-1 & 2 / Degasser Unit:
 - (a) Baghouse leak detector alarm system – automated system to assure that the baghouse bags are in good working condition.
 - (b) Baghouse lime injection alarm system – automated system to assure that the baghouse lime system is functioning properly.
 - (c) Baghouse inlet temperature alarm system – automated system to assure that the baghouse inlet temperature is within allowable parameter range.

The operating levels or ranges for the above parameters are established as follows:

- (a) Baghouse leak detector alarm system – TBD
 - (b) Baghouse lime injection alarm system – TBD
 - (c) Baghouse inlet temperature alarm system – TBD
- (2) The monitoring schedule for each affected source (control device) is as follows:
 - (a) Baghouse leak detector alarm system – automated system
 - (b) Baghouse lime injection alarm system – automated system
 - (c) Baghouse inlet temperature alarm system – automated system
- (3) Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits are as follows:
 - (a) Baghouse system – Addendum 3(a)
Note: the proper operation and maintenance of the baghouse leak detector alarm system, the baghouse lime injection alarm system, and the baghouse inlet temperature alarm system are incorporated in item (4) below.
- (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including: Calibration and Certification of accuracy of each monitoring device, according to the manufacturer's instructions are as follows:
 - (a) General Operation, Maintenance, and Quality Control of Continuous Parameter Monitoring Systems:
 - (i) This facility will endeavor to maintain and operate each CPMS in a manner consistent with good air pollution practices.

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- (ii) Every attempt will be made to repair CPMS detected malfunctions as outlined in the SSM (Startup, Shutdown, Malfunction) Plan, and reported in the semiannual startup, shutdown, and malfunction report required by the SECAL MACT standard. Any actions not consistent with the SSM Plan will be recorded and reported in the semiannual excess emissions/summary report as required by the SECAL MACT standard (records kept by the Engineering Secretary).
 - (b) Baghouse leak detector alarm system – Addendum 4(b)
 - (c) Baghouse lime injection alarm system – Addendum 4(c)
 - (d) Baghouse inlet temperature alarm system – Addendum 4(d)
- (5) Procedures for monitoring control device parameters are as follows:
- (a) Control device parameter monitoring is done by automation. Should the monitoring system detect a malfunction, it automatically sends an alarm signal to plant operations personnel who will respond and initiate corrective action as outlined in the Unit SSM Plan.
 - (b) Additionally, preventative maintenance procedures are performed that monitor control device parameters as outlined and incorporated in item (4) above.
- (6) Corrective actions to be taken when add-on control device parameters deviate from the specified limit or range, including:
- A. Procedures to determine and record the cause of the deviation or excursion
 - B. The time the deviation or excursion began and ended
 - C. Procedures for recording the corrective action taken
 - D. The corrective action initiation and completion times/dates
 - (a) When a monitored parameter malfunction alarm occurs, Operations Personnel will, as soon as practicable, initiate corrective action. Note that SECAL MACT requires initiation of corrective action within one hour of the alarm.
 - (b) Operations Personnel will then perform appropriate diagnostic and troubleshooting functions on the equipment to determine the cause of the malfunction, and the proper corrective action will be taken as outlined in the Unit SSM Plan.
 - (c) All monitored parameter malfunctions will be detailed and recorded (records kept by the Engineering Secretary) on the “Startup-Shutdown-Malfunction Log”, including:
 - (i) The date of the malfunction.
 - (ii) The time of the alarm.
 - (iii) The time that corrective action was initiated.
 - (iv) Cause of the malfunction.
 - (v) Corrective action taken, including steps to minimize excess stack emissions if necessary.
 - (vi) Date and time that the corrective action was completed.
 - (vii) Total duration, in minutes or hours, of the malfunction.
- (7) Maintenance Schedule for each control device consistent with manufacturer’s instructions and recommendations for routine and long-term maintenance:
- (a) Baghouse leak detector alarm system – Monthly and yearly floating intervals
 - (b) Baghouse lime injection alarm system – Monthly and yearly floating intervals
 - (c) Baghouse inlet temperature alarm system – Monthly and yearly floating intervals

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- (8) Documentation of work instructions and pollution prevention measures used to achieve compliance for *group 1* furnaces *without* an add-on pollution control device:
- (a) Not Applicable – All group 1 furnaces in this Unit have an add-on pollution control device
- (9) The following SAPU site-specific information is listed below:
- (a) Identification of each EU (emission unit) in the SAPU:
- (i) Emission unit 04 = Melter 1 charge wells
 - (ii) Emission unit 05 = Melter 2 charge wells
 - (iii) Emission unit 06 = Holder 1
 - (iv) Emission unit 07 = Holder 2
 - (v) Emission unit 09 = Melter 3 charge wells
 - (vi) Emission unit 13a = Rotary Barrel Furnace 1
 - (vii) Emission unit 13b = Rotary Barrel Furnace 2
 - (viii) Emission unit 22 = Degasser
 - (ix) Note: The media (Burner Ball Shaker) cleaning system is common ducted to the M-1&2/ H-1&2/ Degasser baghouse but is not an emission unit as defined in the SECAL MACT standard.
 - (x) Note: The Delacquering system is common ducted to the Melter 3 - Delaq baghouse but is not an emission unit as defined in the SECAL MACT standard.
 - (xi) Note: The Rotary Dross Cooler and the RBF material bins are common ducted to the RBF baghouse but are not Emission Units as defined in the SECAL MACT standard.
- (b) The specific control technology or pollution prevention measure to be used on each EU and the date of its installation or application:
- (i) All M-1 & 2 / H-1 & 2 / Degasser Unit EU's (EU04, EU05, EU06, EU07, EU22) are common ducted to EP23 lime injected baghouse, which, along with a bag leak detection system, a lime injection detection system, and an inlet temperature monitoring system, were installed/approved on date - TBD.
 - (ii) EU 09 was installed/approved on 8-5-94 and is common ducted to EP03 lime injected baghouse which was installed/approved on 11-5-90. A bag leak detection system and an inlet temperature monitoring system were added to the baghouse (installed /approved) on date-TBD
 - (iii) EU 13a & EU 13b are common ducted to EP13 lime injected baghouse installed/approved Oct. 1998. A bag leak detection system, an updated lime injection system, and an inlet temperature monitoring system were added to the baghouse (installed /approved) on March 23, 2003.
- (c) Calculated SAPU emission limit and performance test results and supporting calculations demonstrating initial compliance for each EU:
- (i) Listed in Addendum 9(c)
- (d) Information and data demonstrating compliance for each EU with all applicable design, equipment, work practice or operational standards:
- (i) Listed in Addendum 9(d)
- (e) Monitoring requirements applicable to each EU in the SAPU and monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t):
- (i) Listed in Addendum 9(e)
- (10) The SAPU compliance procedures within this OM&M plan do not contain any of the following provisions:
- (a) Any averaging among emissions of differing pollutants

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- (b) The inclusion of any affected sources other than EU's in this SAPU, except common ducted sources as allowed by and approved by the permitting authority with the acceptance of this plan.
 - (c) The inclusion of any EU while it is shutdown
 - (d) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations
- (11) To revise the SAPU compliance provisions within this OM&M plan prior to the end of the permit term, the owner or operator will submit a request to the applicable permitting authority containing the information required by paragraph (9) of this plan and obtain approval of the applicable permitting authority prior to implementing any revisions.

Addendum 3(a) - Baghouse System

Procedures for the proper operation and maintenance of each add-on control device used to meet the emission limits:

The Secondary Aluminum MACT Standard requires inspection of each capture/collection and closed vent system at least once each calendar year. Although the Company frequently conducts Baghouse Preventative Maintenance (P.M.) at floating intervals, only the yearly inspection is included in this plan, which satisfies the standard and does not overly burden the company with unnecessary record keeping in the spirit of the Paperwork Reduction Act. The Baghouse Yearly Preventative Maintenance Guide Form has been compiled using both the appropriate manufacturers specifications and general historical experience. Because the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide form is generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(b) - Baghouse Leak Detector System

Bag Leak Detector System specific Operation, Maintenance, and Quality Control:

The bag leak detector system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The bag leak detector system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because bag leak detectors have not been previously required

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or necessary, the company has no experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(c) - Baghouse Lime Injection System

Baghouse Lime Injection System specific Operation, Maintenance, and Quality Control:

The baghouse lime injection system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The baghouse lime injection system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because baghouse lime injection systems of this type have not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 4(d) - Baghouse Inlet Temperature System

Baghouse Inlet Temperature System specific Operation, Maintenance, and Quality Control:

The baghouse inlet temperature system will be calibrated, operated, and maintained in accordance with its Preventative Maintenance Guide Forms (TBD).

The baghouse inlet temperature system Preventative Maintenance (P.M.) is conducted at floating intervals of monthly and yearly. The Preventative Maintenance Guide Forms have been compiled using the appropriate manufacturers specifications. Because baghouse inlet temperature systems of this type have

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not been previously required or necessary, the company has little experience with them. Since the manufacturers' specifications are subject to change, the agency will allow the company, without notification to the permitting authority, to adapt quality control improvements and upgrades to its computerized forms during the term of this permit.

The guide forms are generated by the CMMS (Computerized Maintenance Management System) and the completed work orders are recorded into and kept on file within this system accessible from the Maintenance Advisors office and/or the Maintenance Operations Manager's office. Because the SECAL MACT standard requires an annual compliance certification at the end of each year that must be kept for 5 years, these maintenance records must be kept for a total of six years.

Addendum 9(c)

Calculated SAPU emission limit and performance test results and supporting calculations demonstrating initial compliance for each EU:

TBD

Addendum 9(d)

Information and data demonstrating compliance for each EU with all applicable design, equipment, work practice or operational standards:

TBD

Addendum 9(e)

Monitoring requirements applicable to each EU in the SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t):

TBD

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, four or more copies of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance

at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with *567 IAC 22.107(4)*. The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule *567 IAC 22.106* to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
 - a. Form 1.0 "Facility Identification";
 - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
 - c. Form 5.0 "Title V annual emissions summary/fee"; and
 - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
 - a. Form 1.0 "Facility Identification";
 - b. Form 5.0 "Title V annual emissions summary/fee";
 - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in *567 IAC 22.115(1)"d"*.

G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:

- a. The date, place and time of sampling or measurements
- b. The date the analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses; and
- f. The operating conditions as existing at the time of sampling or measurement.
- g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)

2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:
 - a. Comply with all terms and conditions of this permit specific to each alternative scenario.
 - b. Maintain a log at the permitted facility of the scenario under which it is operating.
 - c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
 - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
 - b. Compliance test methods specified in 567 Chapter 25; or
 - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a. Any monitoring or testing methods provided in these rules; or
 - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a

violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

- 1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
 - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.

- b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act.
- e. The changes comply with all applicable requirements.
- f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
 - i. A brief description of the change within the permitted facility,
 - ii. The date on which the change will occur,
 - iii. Any change in emission as a result of that change,
 - iv. The pollutants emitted subject to the emissions trade
 - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
 - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
 - vii. Any permit term or condition no longer applicable as a result of the change.

567 IAC 22.110(1)

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. Aggregate Insignificant Emissions. The permittee shall not construct, establish or operate any new insignificant activities or modify any existing insignificant activities in such a way that the emissions from these activities no longer meet the criteria of aggregate insignificant emissions. If the aggregate insignificant emissions are expected to be exceeded, the permittee shall submit the appropriate permit modification and receive approval prior to making any change. *567 IAC 22.103(2)*

6. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

- a. An administrative permit amendment is a permit revision that is required to do any of the following:
 - i. Correct typographical errors
 - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - iii. Require more frequent monitoring or reporting by the permittee; or
 - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
- b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

- a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:
 - i. Do not violate any applicable requirements
 - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.
 - iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.
 - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;
 - v. Are not modifications under any provision of Title I of the Act; and
 - vi. Are not required to be processed as significant modification.
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
 - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.
 - ii. The permittee's suggested draft permit
 - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and
 - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. 567 IAC 22.111-567 IAC 22.113 The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.105(1)"a"(4)

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. 567 IAC 22.1(1)

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. 567 IAC 23.1(3)"a", and 567 IAC 23.2

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. 567 IAC 23.2 except 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. 567 IAC 22.108(7)

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
 - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
 - a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
 - b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.
 - c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*
3. A permit shall be reopened and revised under any of the following circumstances:
 - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;
 - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
 - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
 - d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
 - e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*
4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

Compliance with the conditions of this permit shall be deemed compliance with the applicable requirements included in this permit as of the date of permit issuance.

This permit shield shall not alter or affect the following:

1. The provisions of section 303 of the Act (emergency orders), including the authority of the administrator under that section;
2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Act;
4. The ability of the department or the administrator to obtain information from the facility pursuant to section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1

909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2

P.O. Box 1443
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3

1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4

1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5

401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Field Office 6

1004 W. Madison
Washington, IA 52353
(319) 653-2135

Polk County Public Health Dept.

Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health Dept.

Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

V. Subpart RRR--National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

The Permittee shall comply with all applicable requirements of 40 CFR 63 Subpart RRR National Emission Standards for Secondary Aluminum Production - 567 IAC 23.1(4)"br".

The following emission sources are subject to Subpart RRR:

EP	EU	EU Description	Regulated As
01	01	Aluminum Shredder	Aluminum Scrap Shredder
03	03	Delacquering System	Scrap Dryer/Delacquering Kiln/Decorating Kiln
03	03a	Delacquering System (Nat. Gas)	Scrap Dryer/Delacquering Kiln/Decorating Kiln
03	09	Melting Furnace #3	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
03	12	Afterburner for Melter #3 (Nat. Gas)	Control Equipment for Group 1 Furnace
03	19	Delacquer Afterburner (Nat. Gas)	Control Equipment for Delacquering Kiln
04	04a	Melting Furnace #1 (Nat. Gas)	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
05	05a	Melting Furnace #2 (Nat. Gas)	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
09	09a	Melting Furnace #3 (Nat. Gas)	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
13	13	Rotary Barrel Furnace/Assoc. Process	Group 1 Furnace
23	04	Melting Furnace #1	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
23	05	Melting Furnace #2	Main Hearth - Group 2 Furnace Charge Wells – Group 1 Furnace
23	06	Holding Furnace #1	Group 1 Furnace
23	06a	Holding Furnace #1 (Nat. Gas)	Group 1 Furnace
23	07	Holding Furnace #2	Group 1 Furnace
23	07a	Holding Furnace #1 (Nat. Gas)	Group 1 Furnace
23	22	Holding Furnace Degasser	In-Line Fluxer

Excerpts of the applicable Subpart RRR Requirements are shown below:

(Note: Citation numbering is consistent with 40 CFR Part 63. Requirements to which Nichols Aluminum - Casting is not subject have been removed. These citations are provided for reference only. If the Subpart RRR Requirements are modified in the future, Nichols Aluminum - Casting is responsible for demonstrating compliance with 40 CFR 63 Subpart RRR as printed in the Federal Register regardless of whether the citations listed below are modified.)

Sec. 63.1501 Dates.

(a) The owner or operator of an existing affected source must comply with the requirements of this subpart by March 24, 2003.

(b) The owner or operator of a new affected source that commences construction or reconstruction after February 11, 1999 must comply with the requirements of this subpart by March 23, 2000 or upon startup, whichever is later.

Sec. 63.1505 Emission standards for affected sources and emission units.

(a) Summary. The owner or operator of a new or existing affected source must comply with each applicable limit in this section. Table 1 to this subpart summarizes the emission standards for each type of source.

(b) Aluminum scrap shredder. On and after the compliance date established by Sec. 63.1501, the owner or operator of an aluminum scrap shredder at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere:

- (1) Emissions in excess of 0.023 grams (g) of PM per dry standard cubic meter (dscm) (0.010 grain (gr) of PM per dry standard cubic foot (dscf)); and
- (2) Visible emissions (VE) in excess of 10 percent opacity from any PM add-on air pollution control device if a continuous opacity monitor (COM) or visible emissions monitoring is chosen as the monitoring option.

(d) Scrap dryer/delacquering kiln/decoating kiln. On and after the compliance date established by Sec. 63.1501:

- (1) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln must not discharge or cause to be discharged to the atmosphere emissions in excess of:
 - (i) 0.03 kg of THC, as propane, per Mg (0.06 lb. of THC, as propane, per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;
 - (ii) 0.04 kg of PM per Mg (0.08 lb. per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;
 - (iii) 0.25 µg of D/F TEQ per Mg (3.5×10^{-6} gr of D/F TEQ per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major or area source; and
 - (iv) 0.40 kg of HCl per Mg (0.80 lb. per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source.
- (2) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(e) Scrap dryer/delacquering kiln/decoating kiln: alternative limits. The owner or operator of a scrap dryer/delacquering kiln/decoating kiln may choose to comply with the emission limits in this paragraph (e) as an alternative to the limits in paragraph (d) of this section if the scrap dryer/delacquering kiln/decoating kiln is equipped with an afterburner having a design residence time of at least 1 second and the afterburner is operated at a temperature of at least 750 °C (1400 °F) at all times. On and after the compliance date established by Sec. 63.1501:

- (1) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln must not discharge or cause to be discharged to the atmosphere emissions in excess of:
 - (i) 0.10 kg of THC, as propane, per Mg (0.20 lb. of THC, as propane, per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;
 - (ii) 0.15 kg of PM per Mg (0.30 lb. per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;
 - (iii) 5.0 µg of D/F TEQ per Mg (7.0×10^{-5} gr of D/F TEQ per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major or area source; and
 - (iv) 0.75 kg of HCl per Mg (1.50 lb. per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source.
 - (2) The owner or operator of a scrap dryer/ delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.
- (i) Group 1 furnace. The owner or operator of a group 1 furnace must use the limits in this paragraph to determine the emission standards for a SAPU.
- (1) 0.20 kg of PM per Mg (0.40 lb. of PM per ton) of feed/charge from a group 1 furnace, that is not a melting/holding furnace processing only clean charge, at a secondary aluminum production facility that is a major source;
 - (2) 0.40 kg of PM per Mg (0.80 lb. of PM per ton) of feed/charge from a group 1 melting/holding furnace processing only clean charge at a secondary aluminum production facility that is a major source;
 - (3) 15 µg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge from a group 1 furnace at a secondary aluminum production facility that is a major or area source. This limit does not apply if the furnace processes only clean charge; and
 - (4) 0.20 kg of HCl per Mg (0.40 lb. of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight, for a group 1 furnace at a secondary aluminum production facility that is a major source.
 - (5) The owner or operator of a group 1 furnace at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.
 - (6) The owner or operator may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge.
- (j) In-line fluxer. Except as provided in paragraph (j)(3) of this section for an in-line fluxer using no reactive flux material, the owner or operator of an in-line fluxer must use the limits in this paragraph to determine the emission standards for a SAPU.
- (1) 0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge;

- (2) 0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge.
- (3) The emission limits in paragraphs (j)(1) and (j)(2) of this section do not apply to an in-line fluxer that uses no reactive flux materials.
- (4) The owner or operator of an in-line fluxer at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device used to control emissions from the in-line fluxer, if a COM is chosen as the monitoring option.
- (5) The owner or operator may determine the emission standards for a SAPU by applying the in-line fluxer limits on the basis of the aluminum production weight in each in-line fluxer, rather than on the basis of feed/charge.

(k) Secondary aluminum processing unit. On and after the compliance date established by §63.1501, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (2) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major source. The owner or operator must comply with the emission limit calculated using the equation for D/F in paragraph (k)(3) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

- (1) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM in excess of:

$$L_{cPM} = \frac{\sum_{i=1}^n (L_{tiPM} \times T_{ti})}{\sum_{i=1}^n T_{ti}} \quad (\text{Eq.1})$$

Where,

L_{tiPM} = The PM emission limit for individual emission unit i in paragraph (i)(1) and (2) of this section for a group 1 furnace or in paragraph (j)(2) of this section for an in-line fluxer;

T_{ti} = The feed/charge rate for individual emission unit I; and

L_{cPM} = The PM emission limit for the secondary aluminum processing unit.

Note: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

- (2) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of HCl in excess of:

$$L_{cHCl} = \frac{\sum_{i=1}^n (L_{tiHCl} \times T_{ti})}{\sum_{i=1}^n T_{ti}} \quad (\text{Eq.2})$$

Where,

L_{tiHCl} = The HCl emission limit for individual emission unit i in paragraph (i)(4) of this section for a group 1 furnace or in paragraph (j)(1) of this section for an in-line fluxer; and

L_{cHCl} = The HCl emission limit for the secondary aluminum processing unit.

Note: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

- (3) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of:

$$L_{cD/F} = \frac{\sum_{i=1}^n (L_{tiD/F} \times T_{ti})}{\sum_{i=1}^n T_{ti}} \quad (\text{Eq.3})$$

Where,

$L_{tiD/F}$ = The D/F emission limit for individual emission unit i in paragraph (i)(3) of this section for a group 1 furnace; and

$L_{cD/F}$ = The D/F emission limit for the secondary aluminum processing unit.

Note: Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

- (4) The owner or operator of a SAPU at a secondary aluminum production facility that is a major source may demonstrate compliance with the emission limits of paragraphs (k)(1) through (3) of this section by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of paragraphs (i) and (j) of this section.
- (6) With the prior approval of the responsible permitting authority, an owner or operator may redesignate any existing group 1 furnace or in-line fluxer at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of this MACT standard and will be irreversible.

Sec. 63.1506 Operating requirements.

(a) Summary.

- (1) On and after the compliance date established by Sec. 63.1501, the owner or operator must operate all new and existing affected sources and control equipment according to the requirements in this section.
- (2) The owner or operator of an existing sweat furnace that meets the specifications of Sec. 63.1505(f)(1) must operate the sweat furnace and control equipment according to the requirements of this section on and after the compliance date of this standard.
- (4) Operating requirements are summarized in Table 2 to this subpart.

(b) Labeling. The owner or operator must provide and maintain easily visible labels posted at each group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln that identifies the applicable emission limits and means of compliance, including:

- (1) The type of affected source or emission unit (e.g., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).

- (2) The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
 - (3) The afterburner operating temperature and design residence time for a scrap dryer/delacquering kiln/decoating kiln.
- (c) Capture/collection systems. For each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must:
- (1) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (incorporated by reference in Sec. 63.1502 of this subpart);
 - (2) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and
 - (3) Operate each capture/collection system according to the procedures and requirements in the OM&M plan.
- (d) Feed/charge weight. The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb./ton) of feed/charge must:
- (1) Except as provided in paragraph (d)(3) of this section, install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and
 - (2) Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.
 - (3) The owner or operator may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that:
 - (i) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and
 - (ii) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.
- (e) Aluminum scrap shredder. The owner or operator of a scrap shredder with emissions controlled by a fabric filter must operate a bag leak detection system, or a continuous opacity monitor, or conduct visible emissions observations.
- (1) If a bag leak detection system is used to meet the monitoring requirements in Sec. 63.1510, the owner or operator must:
 - (i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.
 - (ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter

demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

- (2) If a continuous opacity monitoring system is used to meet the monitoring requirements in Sec. 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.
- (3) If visible emission observations are used to meet the monitoring requirements in Sec. 63.1510, the owner or operator must initiate corrective action within 1-hour of any observation of visible emissions during a daily visible emissions test and complete the corrective action procedures in accordance with the OM&M plan.

(g) Scrap dryer/delacquering kiln/decoating kiln. The owner or operator of a scrap dryer/delacquering kiln/decoating kiln with emissions controlled by an afterburner and a lime-injected fabric filter must:

- (1) For each afterburner,
 - (i) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.
 - (ii) Operate each afterburner in accordance with the OM&M plan.
- (2) If a bag leak detection system is used to meet the fabric filter monitoring requirements in Sec. 63.1510,
 - (i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan.
 - (ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.
- (3) If a continuous opacity monitoring system is used to meet the monitoring requirements in Sec. 63.1510, initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.
- (4) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).
- (5) For a continuous injection device, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.

(k) In-line fluxer. The owner or operator of an in-line fluxer with emissions controlled by a lime-injected fabric filter must:

- (1) If a bag leak detection system is used to meet the monitoring requirements in Sec. 63.1510,
 - (i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.
 - (ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.
 - (2) If a continuous opacity monitoring system is used to meet the monitoring requirements in Sec. 63.1510, initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.
 - (3) For a continuous injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.
 - (4) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
- (l) In-line fluxer using no reactive flux material. The owner or operator of a new or existing in-line fluxer using no reactive flux materials must operate each in-line fluxer using no reactive flux materials.
- (m) Group 1 furnace with add-on air pollution control devices. The owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must:
- (1) If a bag leak detection system is used to meet the monitoring requirements in Sec. 63.1510, the owner or operator must:
 - (i) Initiate corrective action within 1 hour of a bag leak detection system alarm.
 - (ii) Complete the corrective action procedures in accordance with the OM&M plan.
 - (iii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.
 - (2) If a continuous opacity monitoring system is used to meet the monitoring requirements in Sec. 63.1510, the owner or operator must:
 - (i) Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity; and
 - (ii) Complete the corrective action procedures in accordance with the OM&M plan.

- (3) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).
 - (4) For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.
 - (5) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
 - (6) Operate each sidewall furnace such that:
 - (i) The level of molten metal remains above the top of the passage between the sidewall and hearth during reactive flux injection, unless emissions from both the sidewall and the hearth are included in demonstrating compliance with all applicable emission limits.
 - (ii) Reactive flux is added only in the sidewall, unless emissions from both the sidewall and the hearth are included in demonstrating compliance with all applicable emission limits.
- (o) Group 2 furnace. The owner or operator of a new or existing group 2 furnace must:
- (1) Operate each furnace using only clean charge as the feedstock.
 - (2) Operate each furnace using no reactive flux.
- (p) Corrective action. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the owner or operator must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.

Sec. 63.1510 Monitoring requirements.

- (a) Summary. On and after the compliance date established by Sec. 63.1501, the owner or operator of a new or existing affected source or emission unit must monitor all control equipment and processes according to the requirements in this section. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to this subpart.
- (b) Operation, maintenance, and monitoring (OM&M) plan. The owner or operator must prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The owner or operator of an existing affected source must submit the OM&M plan to the responsible permitting authority no later than the compliance date established by § 63.1501(a). The owner or operator of any new affected source must submit the OM&M plan to the responsible permitting authority within 90 days after a successful initial performance test under § 63.1511(B), or within 90 days after the compliance date established by § 63.1501(b) if no initial performance test is required. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all

requirements of this section and is otherwise consistent with the requirements of this subpart. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority, unless and until the plan is revised in accordance with the following procedures. If the permitting authority determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the permitting authority. Each plan must contain the following information:

- (1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.
 - (2) A monitoring schedule for each affected source and emission unit.
 - (3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in Sec. 63.1505.
 - (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
 - (i) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and
 - (ii) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in subpart A of this part.
 - (5) Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.
 - (6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (b)(1) of this section, including:
 - (i) Procedures to determine and record the cause of an deviation or excursion, and the time the deviation or excursion began and ended; and
 - (ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.
 - (7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
 - (8) Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in paragraph (o) of this section for each group 1 furnace not equipped with an add-on air pollution control device.
- (c) Labeling. The owner or operator must inspect the labels for each group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln at least once per calendar month to confirm that posted labels as required by the operational standard in Sec. 63.1506(b) are intact and legible.
- (d) Capture/collection system. The owner or operator must:

- (1) Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and
- (2) Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Sec. 63.1506(c) and record the results of each inspection.

(e) Feed/charge weight. The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb./ton) or $\mu\text{g/Mg}$ (gr/ton) of feed/charge must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

- (1) The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.
- (2) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

(f) Fabric filters and lime-injected fabric filters. The owner or operator of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of this subpart must install, calibrate, maintain, and continuously operate a bag leak detection system as required in paragraph (f)(1) of this section or a continuous opacity monitoring system as required in paragraph (f)(2) of this section. The owner or operator of an aluminum scrap shredder must install and operate a bag leak detection system as required in paragraph (f)(1) of this section, install and operate a continuous opacity monitoring system as required in paragraph (f)(2) of this section, or conduct visible emission observations as required in paragraph (f)(3) of this section.

- (1) These requirements apply to the owner or operator of a new or existing affected source or existing emission unit using a bag leak detection system.
 - (i) The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter.
 - (ii) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection

- systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
- (iii) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
 - (iv) The bag leak detection system sensor must provide output of relative or absolute PM loadings.
 - (v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
 - (vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
 - (vii) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.
 - (viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
 - (ix) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
 - (x) Following initial adjustment of the system, the owner or operator must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.
- (2) These requirements apply to the owner or operator of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system.
- (i) The owner or operator must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack.
 - (ii) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60.
- (3) These requirements apply to the owner or operator of a new or existing aluminum scrap shredder who conducts visible emission observations. The owner or operator must:
- (i) Perform a visible emissions test for each aluminum scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in appendix A to 40 CFR part 60. Each Method 9 test must consist of five 6-minute observations in a 30-minute period; and
 - (ii) Record the results of each test.
- (g) Afterburner. These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of this subpart.
- (1) The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of this part.

- (2) The temperature monitoring device must meet each of these performance and equipment specifications:
 - (i) The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner.
 - (ii) The monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.
 - (iii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in Sec. 63.1512(m).
 - (iv) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
- (3) The owner or operator must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
 - (i) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
 - (ii) Inspection for proper adjustment of combustion air;
 - (iii) Inspection of internal structures (e.g., baffles) to ensure structural integrity;
 - (iv) Inspection of dampers, fans, and blowers for proper operation;
 - (v) Inspection for proper sealing;
 - (vi) Inspection of motors for proper operation;
 - (vii) Inspection of combustion chamber refractory lining and clean and replace lining as necessary;
 - (viii) Inspection of afterburner shell for corrosion and/or hot spots;
 - (ix) Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and
 - (x) Verification that the equipment is maintained in good operating condition.
 - (xi) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.

(h) Fabric filter inlet temperature. These requirements apply to the owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter to comply with the requirements of this subpart.

- (1) The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in subpart A of this part.
- (2) The temperature monitoring device must meet each of these performance and equipment specifications:
 - (i) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.
 - (ii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in Sec. 63.1512(n).
 - (iii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

(i) Lime injection. These requirements apply to the owner or operator of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of this subpart.

(1) The owner or operator of a continuous lime injection system must verify that lime is always free-flowing by either:

- (i) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or
 - (ii) Subject to the approval of the permitting agency, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action, or
 - (iii) Subject to the approval of the permitting agency, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the owner or operator must promptly initiate and complete corrective action.
- (2) The owner or operator of a continuous lime injection system must record the lime feeder setting once each day of operation.
- (3) An owner or operator who intermittently adds lime to a lime coated fabric filter must obtain approval from the permitting authority for a lime addition monitoring procedure. The permitting authority will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.

(j) Total reactive flux injection rate. These requirements apply to the owner or operator of a group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer. The owner or operator must:

- (1) Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit.
- (i) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test.
 - (ii) The accuracy of the weight measurement device must be ± 1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the permitting authority for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ± 1 percent impracticable. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards.
 - (iii) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

- (2) Calculate and record the gaseous or liquid reactive flux injection rate (kg/Mg or lb./ton) for each operating cycle or time period used in the performance test using the procedure in Sec. 63.1512(o).
 - (3) Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of:
 - (i) Gaseous or liquid reactive flux other than chlorine; and
 - (ii) Solid reactive flux.
 - (4) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in Sec. 63.1512(o).
 - (5) The owner or operator of a group 1 furnace or in-line fluxer performing reactive fluxing may apply to the Administrator for approval of an alternative method for monitoring and recording the total reactive flux addition rate based on monitoring the weight or quantity of reactive flux per ton of feed/charge for each operating cycle or time period used in the performance test. An alternative monitoring method will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.
- (m) In-line fluxers using no reactive flux. The owner or operator of an in-line fluxer that uses no reactive flux materials must submit a certification of compliance with the operational standard for no reactive flux materials in Sec. 63.1506(l) for each 6-month reporting period. Each certification must contain the information in Sec. 63.1516(b)(2)(vi).
- (r) Group 2 furnace. These requirements apply to the owner or operator of a new or existing group 2 furnace. The owner or operator must:
- (1) Record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents.
 - (2) Submit a certification of compliance with the applicable operational standard for charge materials in Sec. 63.1506(o) for each 6-month reporting period. Each certification must contain the information in Sec. 63.1516(b)(2)(v).
- (s) Site-specific requirements for secondary aluminum processing units.
- (1) An owner or operator of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with Sec. 63.1510(b), the following information:
 - (i) The identification of each emission unit in the secondary aluminum processing unit;
 - (ii) The specific control technology or pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application;
 - (iii) The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;
 - (iv) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of this subpart; and

- (v) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in Sec. 63.1510(t).
 - (2) The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions:
 - (i) Any averaging among emissions of differing pollutants;
 - (ii) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;
 - (iii) The inclusion of any emission unit while it is shutdown; or
 - (iv) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.
 - (3) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the owner or operator must submit a request to the applicable permitting authority containing the information required by paragraph (s)(1) of this section and obtain approval of the applicable permitting authority prior to implementing any revisions.
- (t) Secondary aluminum processing unit. Except as provided in paragraph (u) of this section, the owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:
- (1) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in paragraph (e) of this section. If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.
 - (2) Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb./ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds.
 - (3) Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.
 - (4) Compute the 24-hour daily emission rate using Equation 4:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n T_i} \quad (\text{Eq.4})$$

Where,

E_{day} = The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;

T_i = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons);
 ER_i = The measured emission rate for emission unit i as determined in the performance test (lb./ton or μ /Mg of feed/charge); and
 n = The number of emission units in the secondary aluminum processing unit.

- (5) Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3.

(u) Secondary aluminum processing unit compliance by individual emission unit demonstration. As an alternative to the procedures of paragraph (t) of this section, an owner or operator may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emission unit.

(v) Alternative monitoring method for lime addition. The owner or operator of a lime-coated fabric filter that employs intermittent or noncontinuous lime addition may apply to the Administrator for approval of an alternative method for monitoring the lime addition schedule and rate based on monitoring the weight of lime added per ton of feed/charge for each operating cycle or time period used in the performance test. An alternative monitoring method will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.

(w) Alternative monitoring methods. If an owner or operator wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in this subpart, other than those alternative monitoring methods which may be authorized pursuant to Sec. 63.1510(j)(5) and Sec. 63.1510(v), the owner or operator may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in paragraphs (w)(1) through (6) of this section.

- (1) The Administrator will not approve averaging periods other than those specified in this section.
- (2) The owner or operator must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure.
- (3) The owner or operator shall submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application must contain the information specified in paragraphs (w)(3) (i) through (iii) of this section:
 - (i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;
 - (ii) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and
 - (iii) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s).

- (4) The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide:
 - (i) Notice of the information and findings upon which the intended disapproval is based; and
 - (ii) Notice of opportunity for the owner or operator to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the owner or operator to provide additional supporting information.
- (5) The owner or operator is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provisions of this subpart.
- (6) The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.

Sec. 63.1511 Performance test/compliance demonstration general requirements.

(a) Site-specific test plan. Prior to conducting any performance test required by this subpart, the owner or operator must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set for in § 63.7(c).

(b) Initial performance test. Following approval of the site-specific test plan, the owner or operator must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in § 63.1515(b). The owner or operator of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by § 63.1501(a). The owner or operator of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by § 63.1501(b). Except for the date by which the performance test must be conducted, the owner or operator must conduct each performance test in accordance with the requirements and procedures set forth in § 63.7(c). Owners or operators of affected sources located at facilities which are area sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F. Owners or operators of sweat furnaces meeting the specifications of § 63.1505(f)(1) are not required to conduct a performance test.

- (1) The owner or operator must conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.
- (2) Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.

- (3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.
- (4) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.
- (5) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

(c) Test methods. The owner or operator must use the following methods in appendix A to 40 CFR part 60 to determine compliance with the applicable emission limits or standards:

- (1) Method 1 for sample and velocity traverses.
- (2) Method 2 for velocity and volumetric flow rate.
- (3) Method 3 for gas analysis.
- (4) Method 4 for moisture content of the stack gas.
- (5) Method 5 for the concentration of PM.
- (6) Method 9 for visible emission observations.
- (7) Method 23 for the concentration of D/F.
- (8) Method 25A for the concentration of THC, as propane.
- (9) Method 26A for the concentration of HCl. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

(d) Alternative methods. The owner or operator may use an alternative test method, subject to approval by the Administrator.

(e) Repeat tests. The owner or operator of new or existing affected sources and emission units located at secondary aluminum production facilities that are major sources must conduct a performance test every 5 years following the initial performance test.

(f) Testing of representative emission units. With the prior approval of the permitting authority, an owner or operator may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device, or by testing an in-line flux box which is not controlled by any add-on control device, to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:

- (1) The tested emission unit must use feed materials and charge rates which are comparable to the emission units it represents;
- (2) The tested emission unit must use the same type of flux materials in the same proportions as the emission units it represents;
- (3) The tested emission unit must be operated utilizing the same work practices as the emission units that it represents;
- (4) The tested emission unit must be of the same design as the emission units that it represents; and

- (5) The tested emission unit must be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents.

(g) Establishment of monitoring and operating parameter values. The owner or operator of new or existing affected sources and emission units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by Sec. 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the owner or operator must use the appropriate procedures in this section and submit the information required by Sec. 63.1515(b)(4) in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the applicable permitting authority:

- (1) The complete emission test report(s) used as the basis of the parameter(s) is submitted.
- (2) The same test methods and procedures as required by this subpart were used in the test.
- (3) The owner or operator certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report.
- (4) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

(h) Testing of commonly-ducted units within a secondary aluminum processing unit. When group 1 furnaces and/or in-line fluxers are included in a single existing SAPU or new SAPU, and the emissions from more than one emission unit within that existing SAPU or new SAPU are manifolded to a single control device, compliance for all units within the SAPU is demonstrated if the total measured emissions from all controlled and uncontrolled units in the SAPU do not exceed the emission limits calculated for that SAPU based on the applicable equation in Sec. 63.1505(k).

(i) Testing of commonly-ducted units not within a secondary aluminum processing unit. With the prior approval of the permitting authority, an owner or operator may do combined performance testing of two or more individual affected sources or emission units which are not included in a single existing SAPU or new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements:

- (1) All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit;
- (2) All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units;
- (3) The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device;
- (4) All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device

operating simultaneously under the highest load or capacity reasonably expected to occur; and

- (5) For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device.

Sec. 63.1512 Performance test/compliance demonstration requirements and procedures.

(a) Aluminum scrap shredder. The owner or operator must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observations is the selected monitoring option, the owner or operator must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in appendix A to 40 CFR part 60.

(c) Scrap dryer/delacquering kiln/decoating kiln. The owner or operator must conduct performance tests to measure emissions of THC, D/F, HCl, and PM at the outlet of the control device.

- (1) If the scrap dryer/delacquering kiln/decoating kiln is subject to the alternative emission limits in Sec. 63.1505(e), the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760 °C (1400 °F) for the test.
- (2) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln subject to the alternative limits in Sec. 63.1505(e) must submit a written certification in the notification of compliance status report containing the information required by Sec. 63.1515(b)(7).

(d) Group 1 furnace with add-on air pollution control devices.

- (1) The owner or operator of a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).
- (2) The owner or operator of a group 1 furnace that processes only clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).
- (3) The owner or operator may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.
- (4) The owner or operator of a sidewall group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewall at times when the level of molten metal falls below the top of the passage between the sidewall and the hearth, must conduct the performance tests required by paragraph (d)(1) or (d)(2) of this section, to measure emissions from both the sidewall and the hearth.

(h) In-line fluxer.

- (1) The owner or operator of an in-line fluxer that uses reactive flux materials must conduct a performance test to measure emissions of HCl and PM or otherwise demonstrate compliance in accordance with paragraph (h)(2) of this section. If the in-line fluxer is equipped with an add-on control device, the emissions must be measured at the outlet of the control device.
- (2) The owner or operator may choose to limit the rate at which reactive chlorine flux is added to an in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all chlorine in the reactive flux added to the in-line fluxer is emitted as HCl. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl. If the owner or operator of any in-line flux box which has no ventilation ductwork manifolded to any outlet or emission control device chooses to demonstrate compliance with the emission limit for HCl by limiting use of reactive chlorine flux and assuming that all chlorine in the flux is emitted as HCl, compliance with the HCl limit shall also constitute compliance with the emission limit for PM, and no separate emission test for PM is required. In this case, the owner or operator of the unvented in-line flux box must utilize the maximum permissible PM emission rate for the in-line flux boxes when determining the total emissions for any SAPU which includes the flux box.

(j) Secondary aluminum processing unit. The owner or operator must conduct performance tests as described in paragraphs (j)(1) through (3) of this section. The results of the performance tests are used to establish emission rates in lb./ton of feed/charge for PM and HCl and $\mu\text{g TEQ/Mg}$ of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in Sec. 63.1510(t). A performance test is required for:

- (1) Each group 1 furnace processing only clean charge to measure emissions of PM and either:
 - (i) Emissions of HCl (for the emission limit); or
 - (ii) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).
- (2) Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either:
 - (i) Emissions of HCl (for the emission limit); or
 - (ii) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).
- (3) Each in-line fluxer to measure emissions of PM and HCl.

(k) Feed/charge weight measurement. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb./ton) format, the owner or operator of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb./ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. An owner or operator that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight.

(l) Continuous opacity monitoring system. The owner or operator of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the owner or operator must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test.

(m) Afterburner. These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of this subpart.

(1) Prior to the initial performance test, the owner or operator must conduct a performance evaluation for the temperature monitoring device according to the requirements of Sec. 63.8.

(2) The owner or operator must use these procedures to establish an operating parameter value or range for the afterburner operating temperature.

(i) Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests;

(ii) Determine and record the 15-minute block average temperatures for the three test runs; and

(iii) Determine and record the 3-hour block average temperature measurements for the 3 test runs.

(n) Inlet gas temperature. The owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature.

(1) Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests;

(2) Determine and record the 15-minute block average temperatures for the 3 test runs; and

(3) Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

(o) Flux injection rate. The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

(1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs;

(2) Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

(3) Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and the total weight of chlorine in the solid reactive flux using Equation 5:

$$W_t = F_1 W_1 + F_2 W_2 \quad (\text{Eq.5})$$

Where,

W_t = Total chlorine usage, by weight;
 F_1 = Fraction of gaseous or liquid flux that is chlorine;
 W_1 = Weight of reactive flux gas injected;
 F_2 = Fraction of solid reactive chloride flux that is chlorine (e.g., $F = 0.75$ for magnesium chloride; and
 W_2 = Weight of solid reactive flux;

- (4) Divide the weight of total chlorine usage (W_t) for the 3 test runs by the recorded measurement of the total weight of feed for the 3 test runs; and
- (5) If a solid reactive flux other than magnesium chloride is used, the owner or operator must derive the appropriate proportion factor subject to approval by the applicable permitting authority.

(p) Lime injection. The owner or operator of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test.

- (1) For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and
- (2) Record the feeder setting for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the 3 runs.

(q) Bag leak detection system. The owner or operator of an affected source or emission unit using a bag leak detection system must submit the information described in Sec. 63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in Sec. 63.1510(f).

(r) Labeling. The owner or operator of each scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace and in-line fluxer must submit the information described in Sec. 63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in Sec. 63.1506(b).

(s) Capture/collection system. The owner or operator of a new or existing affected source or emission unit with an add-on control device must submit the information described in Sec. 63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in Sec. 63.1506(c).

Sec. 63.1513 Equations for determining compliance.

(a) THC emission limit. Use Equation 6 to determine compliance with an emission limit for THC:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{M_V \times P \times 10^6} \quad (\text{Eq.6})$$

Where,

E = Emission rate of measured pollutant, kg/Mg (lb./ton) of feed;

C = Measured volume fraction of pollutant, ppmv;

MW = Molecular weight of measured pollutant, g/g-mole (lb./lb-mole): THC

(as propane) = 44.11;
 Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
 K₁ = Conversion factor, 1 kg/1,000 g (1 lb./lb);
 K₂ = Conversion factor, 1,000 L/m³ (1 ft³/ft³);
 M_v = Molar volume, 24.45 L/g-mole (385.3 ft³/lb-mole); and
 P = Production rate, Mg/hr (ton/hr).

(b) PM, HCl and D/F emission limits. Use Equation 7 to determine compliance with an emission limit for PM, HCl, and D/F:

$$E = \frac{C \times Q \times K}{P} \quad (\text{Eq.7})$$

Where,

E = Emission rate of PM, HCl, or D/F, kg/Mg (lb./ton) of feed;
 C = Concentration of PM, HCl, or D/F, g/dscm (gr/dscf);
 Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
 K₁ = Conversion factor, 1 kg/1,000 g (1 lb./7,000 gr); and
 P = Production rate, Mg/hr (ton/hr).

(c) HCl percent reduction standard. Use Equation 8 to determine compliance with an HCl percent reduction standard:

$$\%R = \frac{L_i - L_o}{L_i} \times 100 \quad (\text{Eq.8})$$

Where,

%R = Percent reduction of the control device;
 L_i = Inlet loading of pollutant, kg/Mg (lb./ton); and
 L_o = Outlet loading of pollutant, kg/Mg (lb./ton).

(d) Conversion of D/F measurements to TEQ units. To convert D/F measurements to TEQ units, the owner or operator must use the procedures and equations in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA-625/3-89-016), incorporated by reference in Sec. 63.1502 of this subpart, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90-145756.

(e) Secondary aluminum processing unit. Use the procedures in paragraphs (e)(1), (2), and (3) or the procedure in paragraph (e)(4) of this section to determine compliance with emission limits for a secondary aluminum processing unit.

- (1) Use Equation 9 to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cPM}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cPM}) calculated using Equation 1 in Sec. 63.1505(k).

$$E_{CPM} = \frac{\sum_{i=1}^n (E_{tiPM} \times T_{ti})}{\sum_{i=1}^n (T_{ti})} \quad (\text{Eq.9})$$

Where,

E_{CPM} = The mass-weighted PM emissions for the secondary aluminum processing unit;

E_{tiPM} = Measured PM emissions for individual emission unit i;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period; and

n = The number of emission units in the secondary aluminum processing unit.

- (2) Use Equation 10 to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cHCl}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cHCl}) calculated using Equation 2 in Sec. 63.1505(k).

$$E_{CHCl} = \frac{\sum_{i=1}^n (E_{tiHCl} \times T_{ti})}{\sum_{i=1}^n (T_{ti})} \quad (\text{Eq.10})$$

Where,

E_{cHCl} = The mass-weighted HCl emissions for the secondary aluminum processing unit; and

E_{tiHCl} = Measured HCl emissions for individual emission unit i.

- (3) Use Equation 11 to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cD/F}$) calculated using Equation 3 in Sec. 63.1505(k).

$$E_{CD / F} = \frac{\sum_{i=1}^n (E_{tiD / F} \times T_{ti})}{\sum_{i=1}^n (T_{ti})} \quad (\text{Eq.11})$$

Where,

$E_{cD/F}$ = The mass-weighted D/F emissions for the secondary aluminum processing unit; and

$E_{tiD/F}$ = Measured D/F emissions for individual emission unit i.

- (4) As an alternative to using the equations in paragraphs (e)(1), (2), and (3) of this section, the owner or operator may demonstrate compliance for a secondary aluminum processing unit by demonstrating that each existing group 1 furnace is in compliance with the

emission limits for a new group 1 furnace in Sec. 63.1505(i) and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in Sec. 63.1505(j).

Sec. 63.1515 Notifications.

(a) Initial notifications. The owner or operator must submit initial notifications to the applicable permitting authority as described in paragraphs (a)(1) through (7) of this section.

- (1) As required by Sec. 63.9(b)(1), the owner or operator must provide notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard.
- (2) As required by Sec. 63.9(b)(3), the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is not required under Sec. 63.5(d), must provide notification that the source is subject to the standard.
- (3) As required by Sec. 63.9(b)(4), the owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is required by Sec. 63.5(d) must provide the following notifications:
 - (i) Intention to construct a new major affected source, reconstruct a major source, or reconstruct a major source such that the source becomes a major affected source;
 - (ii) Date when construction or reconstruction was commenced (submitted simultaneously with the application for approval of construction or reconstruction if construction or reconstruction was commenced before the effective date of this subpart, or no later than 30 days after the date construction or reconstruction commenced if construction or reconstruction commenced after the effective date of this subpart);
 - (iii) Anticipated date of startup; and
 - (iv) Actual date of startup.
- (4) As required by Sec. 63.9(b)(5), after the effective date of this subpart, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to this subpart, or reconstruct a source such that it becomes an affected source subject to this subpart, must provide notification of the intended construction or reconstruction. The notification must include all the information required for an application for approval of construction or reconstruction as required by Sec. 63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill these requirements.
 - (i) The application must be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date) if the construction or reconstruction commences after the effective date of this subpart; or
 - (ii) The application must be submitted as soon as practicable before startup but no later than 90 days after the effective date of this subpart if the construction or reconstruction had commenced and initial startup had not occurred before the effective date.
- (5) As required by Sec. 63.9(d), the owner or operator must provide notification of any special compliance obligations for a new source.
- (6) As required by Sec. 63.9(e) and (f), the owner or operator must provide notification of the anticipated date for conducting performance tests and visible emission observations. The

owner or operator must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place.

- (7) As required by Sec. 63.9(g), the owner or operator must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems.

(b) Notification of compliance status report. Each owner or operator of an existing affected source must submit a notification of compliance status report within 60 days after the compliance date established by § 63.1501(a). Each owner or operator of a new affected source must submit a notification of compliance status report within 90 days after conducting the initial performance test required by § 63.1511(b), or within 90 days after the compliance date established by § 63.1501(b) if no initial performance test is required. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs (a)(1) through (10) of this section. The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved, the owner or operator must provide duplicate notification to the applicable Regional Administrator. If an owner or operator submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include:

- (1) All information required in Sec. 63.9(h). The owner or operator must provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests).
- (2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).
- (3) Unit labeling as described in Sec. 63.1506(b), including process type or furnace classification and operating requirements.
- (4) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
- (5) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in Sec. 63.1506(c).
- (6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in Sec. 63.1510(f).
- (7) Manufacturer's specification or analysis documenting the design residence time of no less than 1 second for each afterburner used to control emissions from a scrap dryer/delacquering kiln/decoating kiln subject to alternative emission standards in Sec. 63.1505(e).

- (8) Manufacturer's specification or analysis documenting the design residence time of no less than 0.8 seconds and design operating temperature of no less than 1,600 °F for each afterburner used to control emissions from a sweat furnace that is not subject to a performance test.
- (9) The OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).
- (10) Startup, shutdown, and malfunction plan, with revisions.

Sec. 63.1516 Reports.

(a) Startup, shutdown, and malfunction plan/reports. The owner or operator must develop and implement a written plan as described in Sec. 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by Sec. 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Sec. 63.6(e)(3). In addition to the information required in Sec. 63.6(e)(3), the plan must include:

- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
- (2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

(b) Excess emissions/summary report. As required by Sec. 63.10(e)(3), the owner or operator must submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in Sec. 63.10(c). When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.

- (1) A report must be submitted if any of these conditions occur during a 6-month reporting period:
 - (i) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.
 - (ii) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour.
 - (iii) The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour.
 - (iv) An excursion of a compliant process or operating parameter value or range (e.g., lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter).
 - (v) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in Sec. 63.6(e)(3).
 - (vi) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.

- (vii) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.
 - (2) Each report must include each of these certifications, as applicable:
 - (i) For each dross-only furnace: "Only dross was used as the charge material in any dross-only furnace during this reporting period."
 - (ii) For each group 2 furnace: "Only clean charge materials were processed in any group 2 furnace during this reporting period, and no fluxing was performed or all fluxing performed was conducted using only nonreactive, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period."
 - (3) The owner or operator must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.
- (c) Annual compliance certifications. For the purpose of annual certifications of compliance required by 40 CFR part 70 or 71, the owner or operator must certify continuing compliance based upon, but not limited to, the following conditions:
- (1) Any period of excess emissions, as defined in paragraph (b)(1) of this section, that occurred during the year were reported as required by this subpart; and
 - (2) All monitoring, recordkeeping, and reporting requirements were met during the year.

Sec. 63.1517 Records

- (a) As required by Sec. 63.10(b), the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart.
- (1) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.
 - (2) The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche; and
 - (3) The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
- (b) In addition to the general records required by Sec. 63.10(b), the owner or operator of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) must maintain records of:
- (1) For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter:
 - (i) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.
 - (ii) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions

- occurred, the time corrective action was initiated and completed, and the corrective action taken.
- (iii) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.
- (2) For each affected source with emissions controlled by an afterburner:
 - (i) Records of 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and
 - (ii) Records of annual afterburner inspections.
 - (3) For each scrap dryer/delacquering kiln/decoating kiln and group 1 furnace, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken.
 - (4) For each affected source and emission unit with emissions controlled by a lime-injected fabric filter:
 - (i) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;
 - (ii) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.
 - (iii) If lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in Sec. 63.1510(v), records of the time and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb./ton of feed/charge).
 - (5) For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
 - (6) For each continuous monitoring system, records required by Sec. 63.10(c).

- (7) For each affected source and emission unit subject to an emission standard in kg/Mg (lb./ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.
- (8) Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.
- (9) Records of all charge materials for each thermal chip dryer, dross-only furnace, and group 1 melting/holding furnaces without air pollution control devices processing only clean charge.
- (10) Operating logs for each group 1 sidewall furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewall and hearth during reactive flux injection and for adding reactive flux only to the sidewall or a furnace hearth equipped with a control device for PM, HCl, and D/F emissions.
- (11) Operating logs for each in-line fluxer using no reactive flux materials documenting each flux gas, agent, or material used during each operating cycle.
- (12) Records of all charge materials and fluxing materials or agents for a group 2 furnace.
- (13) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.
- (14) Records of annual inspections of emission capture/collection and closed vent systems.
- (15) Records for any approved alternative monitoring or test procedure.
- (16) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
 - (i) Startup, shutdown, and malfunction plan;
 - (ii) For major sources, OM&M plan; and
 - (iii) Site-specific secondary aluminum processing unit emission plan (if applicable).
- (17) For each secondary aluminum processing unit, records of total charge weight, or if the owner or operator chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

Sec. 63.1518 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.

VI. Table 2 to Subpart RRR.--Summary of Operating Requirements for New and Existing Affected Sources and Emission Units

Affected source/emission unit	Monitor type/operation/ process	Operating requirements
All affected sources and emission units with an add-on air pollution control device.	Emission capture and collection system.	Design and install in accordance with Industrial Ventilation: A Handbook of Recommended Practice; operate in accordance with OM&M plan. ^b
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits ^a .	Charge/feed weight or Production weight.	Operate a device that records the weight of each charge; Operate in accordance with OM&M plan. ^b
Group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln.	Labeling.....	Identification, operating parameter ranges and operating requirements posted at affected sources and emission units; control device temperature and residence time requirements posted at scrap dryer/delacquering kiln/decoating kiln.
Aluminum scrap shredder with fabric filter.	Bag leak detector or.....	Initiate corrective action within 1-hr of alarm and complete in accordance with OM&M plan ^b ; operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM or.....	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with OM&M plan. ^b
	VE.....	Initiate corrective action within 1-hr of any observed VE and complete in accordance with the OM&M plan. ^b
Thermal chip dryer with afterburner.....	Afterburner operating temperature.	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation..... Feed material.....	Operate in accordance with OM&M plan. ^b Operate using only unpainted aluminum chips.
Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter.	Afterburner operating temperature.	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation..... Bag leak detector or.....	Operate in accordance with OM&M plan. ^b Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; ^b operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM.....	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan. ^b

	Fabric filter inlet temperature.	Maintain average fabric filter inlet temperature for each 3-hr period at or below average temperature during the performance test +14 °C (+25 °F).
	Lime injection rate.....	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during the performance test for continuous injection systems.
Sweat furnace with afterburner.....	Afterburner operating temperature	If a performance test was conducted, maintain average temperature for each 3-hr period at or above average operating temperature during the performance test; if a performance test was not conducted, and afterburner meets specifications of Sec. 63.1505(f)(1), maintain average temperature for each 3-hr period at or above 1600 °F.
	Afterburner operation.....	Operate in accordance with OM&M plan. ^b
Dross-only furnace with fabric filter...	Bag leak detector or.....	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; ^b operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM.....	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan. ^b
	Feed/charge material.....	Operate using only dross as the feed material.
Rotary dross cooler with fabric filter..	Bag leak detector or.....	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; ^b operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM.....	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan. ^b
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector or.....	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; ^b operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM.....	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan. ^b
	Lime injection rate.....	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain

In-line fluxer (using no reactive flux material).	Reactive flux injection rate.	feeder setting at level established during performance test for continuous injection systems. Maintain reactive flux injection rate at or below rate used during the performance test for each operating cycle or time period used in the performance test.
	Flux materials.....	Use no reactive flux.
	Bag leak detector or.....	Initiate corrective action within 1-hr of alarm; operate such that alarm does not sound more than 5% of operating time in 6-month period; complete corrective action in accordance with the OM&M plan. ^b
	COM.....	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more; complete corrective action in accordance with the OM&M plan. ^b
	Fabric filter inlet temperature.	Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the performance test +14 & °C (+25 °F).
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate.	Maintain reactive flux injection rate (lb/hr) at or below rate used during the performance test for each furnace cycle.
	Lime injection rate.....	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established at performance test for continuous injection systems.
	Maintain molten aluminum level.	Operate side-well furnaces such that the level of molten metal is above the top of the passage between sidewell and hearth during reactive flux injection, unless the hearth is also controlled.
	Fluxing in sidewell furnace hearth.	Add reactive flux only to the sidewell of the furnace unless the hearth is also controlled.
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate.	Maintain reactive flux injection rate (lb/hr) at or below rate used during the performance test for each operating cycle or time period used in the performance test.
	Site-specific monitoring plan ^c	Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
	Feed material (melting/holding furnace).	Use only clean charge.

Clean (group 2) furnace.....	Charge and flux materials.	Use only clean charge. Use no reactive flux.
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^a Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces including melting/holding furnaces.

^b OM&M plan--Operation, maintenance, and monitoring plan.

^c Site-specific monitoring plan. Owner/operators of group 1 furnaces without control devices must include a section in their OM&M plan that documents work practice and pollution prevention measures, including procedures for scrap inspection, by which compliance is achieved with emission limits and process or feed parameter-based operating requirements. This plan and the testing to demonstrate adequacy of the monitoring plan must be developed in coordination with and approved by the permitting authority.

VII. Table 3 to Subpart RRR.--Summary of Monitoring Requirements for New and Existing Affected Sources and Emission Units

Affected source/Emission unit	Monitor type/Operation/ Process	Monitoring requirements
All affected sources and emission units with an add-on air pollution control device.	Emission capture and collection system.	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH standards.
All affected sources and emission units subject to production-based (lb/ton of feed/charge) emission limits ^a .	Feed/charge weight.....	Record weight of each feed/charge, weight measurement device or other procedure accuracy of $\pm >1\%$ ^b ; calibrate according to manufacturers specifications, or at least once every 6 months.
Group 1 furnace, group 2 furnace, in-line fluxer, and scrap dryer/ delacquering kiln/decoating kiln.	Labeling.....	Check monthly to confirm that labels are intact and legible.
Aluminum scrap shredder with fabric filter.	Bag leak detector or.....	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record voltage output from bag leak detector.
	COM or.....	Design and install in accordance with PS-1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	VE.....	Conduct and record results of 30-minute daily test in accordance with Method 9.
Thermal chip dryer with afterburner....	Afterburner operating temperature.	Continuous measurement device to meet specifications in Sec. 63.1510(g)(1); record average temperature for each 15-minute block; determine and record 3-hr block averages.
	Afterburner operation.....	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Feed/charge material.....	Record identity of each feed/charge; certify feed/charge materials every 6 months.
Scrap dryer/ delacquering kiln/ decoating kiln with afterburner and lime injected fabric filter.	Afterburner operating temperature.	Continuous measurement device to meet specifications in Sec. 63.1510(g)(1); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation.....	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Bag leak detector or.....	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record voltage output from

	COM.....	bag leak detector. Design and install in accordance with PS-1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Lime injection rate.....	For continuous injection systems, inspect each feed hopper or silo every 8 hrs to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hrs for 3 days; return to 8-hr inspections if corrective action results in no further blockage during 3-day period; record feeder setting daily.
	Fabric filter inlet temperature.	Continuous measurement device to meet specifications in Sec. 63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
Sweat furnace with afterburner.....	Afterburner operating temperature.	Continuous measurement device to meet specifications in Sec. 63.1510(g)(1); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation.....	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
Dross-only furnace with fabric filter...	Bag leak detector or.....	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record output voltage from bag leak detector.
	COM.....	Design and install in accordance with PS-1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Feed/charge material.....	Record identity of each feed/charge; certify charge materials every 6 months.
Rotary dross cooler with fabric filter..	Bag leak detector or.....	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record output voltage from bag leak detector.
	COM.....	Design and install in accordance with PS-1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
In-line fluxer with lime-injected fabric	Bag leak detector or..... filter.	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record output voltage from bag leak detector.
	COM.....	Design and install in accordance with PS-1; collect data in accordance with

	Reactive flux injection rate.	subpart A of 40 CFR part 63; determine and record 6-minute block averages Weight measurement device accuracy of $\pm 1\%$ ^b ; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per Sec. 63.1510(j)(5).
	Lime injection rate.....	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hrs to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hrs for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period. ^d
In-line fluxer using no reactive flux...	Flux materials.....	Record flux materials; certify every 6 months for no reactive flux.
Group 1 furnace with lime-injected fabric filter.	Bag leak detector or.....	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" ^c ; record output voltage from bag leak detector.
	COM.....	Design and install in accordance with PS-1; collect data in accordance with subpart A of 40 part CFR 63; determine and record 6-minute block averages.
	Lime injection rate.....	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period. ^d
	Reactive flux injection rate	Weight measurement device accuracy of $+1\%$ ^b ; calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per Sec. 63.1510(j)(5).

Group 1 furnace without add-on controls.	Fabric filter inlet temperature.	Continuous measurement device to meet specifications in Sec. 63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hour block averages.
	Maintain molten aluminum level in sidewell furnace.	Maintain aluminum level operating log; certify every 6 months.
	Fluxing in sidewell furnace hearth. Reactive flux injection rate.	Maintain flux addition operating log; certify every 6 months. Weight measurement device accuracy of +1% ^b ; calibrate according to manufacturers specifications or at least once every six months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
	OM&M plan (approved by permitting agency).	Demonstration of site-specific monitoring procedures to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
	Feed material (melting/holding furnace).	Record type of permissible feed/charge material; certify charge materials every 6 months.
Clean (group 2) furnace.....	Charge and flux materials..	Record charge and flux materials; certify every 6 months for clean charge and no reactive flux.

^a Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces or melting/holding furnaces.

^b Permitting agency may approve measurement devices of alternative accuracy, for example in cases where flux rates are very low and costs of meters of specified accuracy are prohibitive; or where feed/charge weighing devices of specified accuracy are not practicable due to equipment layout or charging practices.

^c Non-triboelectric bag leak detectors must be installed and operated in accordance with manufacturers' specifications.

^d Permitting agency may approve other alternatives including load cells for lime hopper weight, sensors for carrier gas pressure, or HCl monitoring devices at fabric filter outlet.

VIII. Appendix A to Subpart RRR--General Provisions Applicability to Subpart RRR

Citation	Requirement	Applies to RRR	Comment
Sec. 63.1(a)(1)-(4).....	General Applicability.	Yes.	.....
Sec. 63.1(a)(5).....	.....	No.....	[Reserved].
Sec. 63.1(a)(6)-(8).....	.....	Yes.	.....
Sec. 63.1(a)(9).....	.....	No.....	[Reserved].
Sec. 63.1(a) (10)-(14).....	.....	Yes.	.....
Sec. 63.1(b).....	Initial Applicability Determination.	Yes.....	EPA retains approval authority.
Sec. 63.1(c)(1).....	Applicability After Standard Established.	Yes.	.....
Sec. 63.1(c)(2).....	.....	Yes.....	States have option to exclude area sources from title V permit program.
Sec. 63.1(c)(3).....	.....	No.....	[Reserved].
Sec. 63.1(c)(4)-(5).....	.....	Yes.	.....
Sec. 63.1(d).....	.....	No.....	[Reserved].
Sec. 63.1(e).....	Applicability of Permit Program.	Yes.	.....
Sec. 63.2.....	Definitions.....	Yes.....	Additional definitions in Sec. 63.1503.
Sec. 63.3.....	Units and Abbreviations.	Yes.....	.....
Sec. 63.4(a)(1)-(3).....	Prohibited Activities.	Yes.	.....
Sec. 63.4(a)(4).....	.....	No.....	[Reserved]
Sec. 63.4(a)(5).....	.....	Yes.	.....
Sec. 63.4(b)-(c).....	Circumvention/ Severability.	Yes.	.....
Sec. 63.5(a).....	Construction and Reconstruction— Applicability	Yes.	.....
Sec. 63.5(b)(1).....	Existing, New, Reconstructed Sources--Requirements.	Yes.	.....
Sec. 63.5(b)(2).....	.....	No.....	[Reserved].
Sec. 63.5(b)(3)-(6).....	.....	Yes.	.....
Sec. 63.5(c).....	.....	No.....	[Reserved].
Sec. 63.5(d).....	Application for Approval of Construction/ Reconstruction.	Yes.	.....
Sec. 63.5(e).....	Approval of Construction/ Reconstruction.	Yes.	.....
Sec. 63.5(f).....	Approval of Construction/ Reconstruction Based on State Review.	Yes.	.....

Sec. 63.6(a).....	Compliance with Standards and Maintenance—Applicability.	Yes.	.....
Sec. 63.6(b)(1)-(5).....	New and Reconstructed Sources--Dates.	Yes.	.....
Sec. 63.6(b)(6).....	.....	No.....	[Reserved].
Sec. 63.6(b)(7).....	.....	Yes.	.....
Sec. 63.6(c)(1).....	Existing Sources Dates	Yes.....	Sec. 63.1501 specifies dates.
Sec. 63.6(c)(2).....	.....	Yes.	.....
Sec. 63.6(c)(3)-(4).....	.....	No.....	[Reserved].
Sec. 63.6(c)(5).....	.....	Yes.	.....
Sec. 63.6(d).....	.....	No.....	[Reserved].
Sec. 63.6(e)(1)-(2).....	Operation & Maintenance Requirements.	Yes.....	Sec. 63.1510 requires plan.
Sec. 63.6(e)(3).....	Startup, Shutdown, and Malfunction Plan.	Yes.	.....
Sec. 63.6(f).....	Compliance with Emission Standards.	Yes.	.....
Sec. 63.6(g).....	Alternative Standard..	No.....	.....
Sec. 63.6(h).....	Compliance with Opacity/VE Standards.	Yes.	.....
Sec. 63.6(i)(1)-(14).....	Extension of Compliance.	Yes.	.....
Sec. 63.6(i)(15).....	.....	No.....	[Reserved].
Sec. 63.6(i)(16).....	.....	Yes.	.....
Sec. 63.6(j).....	Exemption from Compliance.	Yes.	.....
Sec. 63.7(a)-(h).....	Performance Test Requirements--Applicability and Dates.	Yes.....	Except § 63.1511 establishes dates for initial performance tests.
Sec. 63.7(b).....	Notification.....	Yes.	.....
Sec. 63.7(c).....	Quality Assurance/Test Plan.	Yes.	.....
Sec. 63.7(d).....	Testing Facilities....	Yes.	.....
Sec. 63.7(e).....	Conduct of Tests.....	Yes.	.....
Sec. 63.7(f).....	Alternative Test Method.	Yes.	.....
Sec. 63.7(g).....	Data Analysis.....	Yes.	.....
Sec. 63.7(h).....	Waiver of Tests.....	Yes.	.....
Sec. 63.8(a)(1).....	Monitoring Requirements--Applicability	Yes.	.....
Sec. 63.8(a)(2).....	.....	Yes.	.....
Sec. 63.8(a)(3).....	.....	No.....	[Reserved]
Sec. 63.8(a)(4).....	.....	Yes.....	.....
Sec. 63.8(b).....	Conduct of Monitoring.	Yes.	.....
Sec. 63.8(c)(1)-(3).....	CMS Operation and Maintenance.	Yes.	.....
Sec. 63.8(c)(4)-(8).....	.....	Yes.	.....
Sec. 63.8(d).....	Quality Control.....	Yes.	.....
Sec. 63.8(e).....	CMS Performance Evaluation.	Yes.	.....

Sec. 63.8(f)(1)-(5).....	Alternative Monitoring Method.	No.....	Sec. 63.1510(w) includes provisions for monitoring alternatives.
Sec. 63.8(f)(6).....	Alternative to RATA Test.	Yes.	.....
Sec. 63.8(g)(1).....	Data Reduction.....	Yes.	.....
Sec. 63.8(g)(2).....	.....	No.....	Sec. 63.1512 requires five 6-minute averages for an aluminum scrap shredder.
Sec. 63.8(g)(3)-(5).....	.....	Yes.	.....
Sec. 63.9(a).....	Notification Requirements—Applicability.	Yes.	.....
Sec. 63.9(b).....	Initial Notifications.	Yes.	.....
Sec. 63.9(c).....	Request for Compliance Extension.	Yes.	.....
Sec. 63.9(d).....	New Source Notification for Special Compliance Requirements.	Yes.	.....
63.9(e).....	Notification of Performance Test.	Yes.	.....
Sec. 63.9(f).....	Notification of VE/Opacity Test.	Yes.	.....
Sec. 63.9(g).....	Additional CMS Notifications.	Yes.	.....
Sec. 63.9(h)(1)-(3).....	Notification of Compliance Status.	Yes.....	Except § 63.1515 establishes dates for notification of compliance status reports.
Sec. 63.9(h)(4).....	.....	No.....	[Reserved].
Sec. 63.9(h)(5)-(6).....	.....	Yes.	.....
Sec. 63.9(i).....	Adjustment of Deadlines.	Yes.	.....
Sec. 63.9(j).....	Change in Previous Information.	Yes.	.....
Sec. 63.10(a).....	Recordkeeping/Reporting—Applicability.	Yes.	.....
Sec. 63.10(b).....	General Requirements..	Yes.....	Sec. 63.1517 includes additional requirements.
Sec. 63.10(c)(1).....	Additional CMS Recordkeeping.	Yes.	.....
Sec. 63.10(c)(2)-(4).....	.....	No.....	[Reserved].
Sec. 63.10(c)(5).....	.....	Yes.	.....
Sec. 63.10(c)(6).....	.....	Yes.	.....
Sec. 63.10(c)(7)-(8).....	.....	Yes.	.....
Sec. 63.10(c)(9).....	.....	No.....	[Reserved].
Sec. 63.10(c) (10)-(13).....	.....	Yes.	.....
Sec. 63.10(c) (14).....	.....	Yes.	.....
Sec. 63.10(d)(1).....	General Reporting Requirements.	Yes.	.....
Sec. 63.10(d)(2).....	Performance Test Results.	Yes.	.....
Sec. 63.10(d)(3).....	Opacity or VE	Yes.	.....

Sec. 63.10(d)(4) -(5).....	Observations. Progress Reports/ Startup, Shutdown, and Malfunction Reports.	Yes.	.....
Sec. 63.10(e)(1)-(2).....	Additional CMS Reports	Yes.	.....
Sec. 63.10(e)(3).....	Excess Emissions/CMS Performance Reports.	Yes.	.....
Sec. 63.10(e)(4).....	COMS Data Reports.....	Yes.	.....
Sec. 63.10(f).....	Recordkeeping/ Reporting Waiver.	Yes.	.....
Sec. 63.11(a)-(b).....	Control Device Requirements.	No.....	Flares not applicable.
Sec. 63.12(a)-(c).....	State Authority and Delegations.	Yes.	EPA retains authority for applicability determinations.
Sec. 63.13.....	Addresses.....	Yes.	.....
Sec. 63.14.....	Incorporation by Reference.	Yes.	Chapters 3 and 5 of ACGIH Industrial Ventilation Manual for capture/collection systems; and Interim Procedures for Estimating Risk Associated with Exposure to Mixtures of Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 and 1989 Update (incorporated by reference in Sec 63.1502).
Sec. 63.15.....	Availability of Information/ Confidentiality.	Yes.	.....

IX. Appendix B: Three Stand Hot Mill Mechanical Collector Instructions List

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X. Appendix C: Administrative Consent Order No. 2002-AQ-36

Kelli Book

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER**

IN THE MATTER OF:

**NICHOLS ALUMINUM CASTING
A DIVISION OF QUANEX**

ADMINISTRATIVE CONSENT ORDER
NO. 2002-AQ-36

TO: Leland Lorentzen, General Manager
Nichols Aluminum Castings, a Division of Quanex
2101 JM Morris Road
Davenport, Iowa 52802

I. SUMMARY

This consent order is entered into between Nichols Aluminum Castings, a Division of Quanex (Nichols) and the Iowa Department of Natural Resources (DNR) for the purpose of resolving issues surrounding Nichols' failure to comply with the requirements of PSD Permit #98-A-468P. In the interest of avoiding litigation, the parties have agreed to the provisions below.

Any questions regarding this order should be directed to:

Relating to technical requirements:

Christine Paulson
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Urbandale, Iowa 50322
Phone: 515/242-5154

Relating to legal requirements:

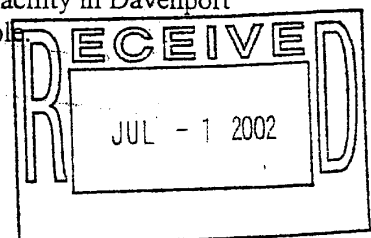
Kelli Book
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Urbandale, Iowa 50322
Phone: 515/281-8563

Payment of penalty to:

Iowa Department of Natural Resources
Henry A. Wallace Building
Des Moines, Iowa 50319-0034

II. STATEMENT OF FACTS

1. Nichols is located at 2101 JM Morris Blvd. in Davenport, Iowa and is a division of Quanex Corporation, which operates numerous steel and aluminum manufacturing and fabrication plants in the United States. The Nichols facility in Davenport produces aluminum sheet. The facility employs approximately 200 people.



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2. Nichols is considered to be a major source under the Prevention of Significant Deterioration (PSD) and Title V regulations. This facility has potential emissions of particulate (PM and PM₁₀), carbon monoxide (CO), nitrogen oxides (NO_x), and volatile organic compounds (VOCs) exceeding the PSD major sources thresholds. This facility is also a major source subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production. Nichols has 23 significant emission units, including an aluminum shredder, three melting furnaces, two holding furnaces, one - three stand hot mills, one refractory curing oven, and two rotary barrel furnaces.

3. On June 24, 1998, the DNR issued PSD Permit #98-A-468P to Nichols for two rotary barrel furnaces (Emission Point 13). During the permit review, the DNR determined the VOC emissions and PM₁₀ emissions were variable. DNR placed the following specific testing and monitoring conditions within the permit.

Condition 10 of PSD Permit #98-A-468P required initial compliance testing of VOC emissions and PM₁₀ emissions. Condition 10 required the testing to be conducted with the equipment operating in a manner representative of maximum rated capacity.

Condition 14A of PSD Permit #98-A-468P required continuous emission monitoring of the VOC emissions. Condition 14A required after the completion of the initial compliance testing, VOC emission rates be verified by the owner operator every four (4) months by stack testing. After two (2) years of periodic monitoring stack tests, the owner or operator could petition the Iowa Air Quality Bureau at any time to discontinue the periodic monitoring.

Condition 14B of PSD Permit #98-A-468P required continuous emission monitoring of the PM₁₀ emissions. Condition 14 required a Continuous Monitoring System (CEM) be installed, operated, calibrated, and maintained during all periods of operation of the source. After three months of operating the CEM, the owner or operator could petition the Iowa Air Quality at any time to discontinue the operation of the CEM.

4. On November 16, 1998, Shane Dodge, DNR Field Office 6, conducted a routine air quality inspection of the Nichols facility. Mr. Dodge noted the CEM was installed but it was not operating. Facility personnel informed Mr. Dodge of their belief that CEM was not an appropriate way to monitor the emissions from the rotary barrel furnaces. Following the inspection, Mr. Dodge contacted the DNR construction permitting section to discuss his concerns regarding whether the CEM could accurately measure the condensable particulate being emitted from the source.

5. On December 29, 1998, Nichols sent a letter to the DNR requesting the PM CEM requirement be removed from PSD Permit #98-A-468P. The facility requested the results from a PM initial stack test be considered sufficient for demonstrating compliance.

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6. On February 2, 1999, DNR issued an amendment to PSD Permit #98-A-468P. The amendment modified the PM CEM requirement to add an optional method of monitoring emissions. The amendment to Condition 14B, PSD Permit #98-A-468P allowed Nichols to choose between either (1) the PM CEM requirement or (2) a series of stack tests plus the use of a Continuous Opacity Monitoring System (COMS) to measure PM emissions. The periodic testing requirement for VOC emissions remained the same. The amended PM₁₀ testing requirement in Condition 14B directed Nichols to:

A Continuous Monitoring System (CEM) for measuring the Particulate Matter emissions discharged into the atmosphere from the source shall be installed, operated, calibrated, and maintained during the periods of operation of the source except for the continuous monitoring system breakdowns, calibration checks, repairs and zero and span adjustments. The CEM shall be installed and calibrated before and operated during the initial stack tests for PM/PM₁₀. All particulate matter measured shall be reported as PM₁₀ to demonstrate compliance with the 24-hour rolling emission limit.

After three-month operation of the CEM the owner or operator may petition the Iowa Air Quality Bureau at any time to discontinue the operation of the CEM. An analysis of correlation between baghouse pressure drop and PM₁₀ Emissions and all hourly data records of the CEM shall be submitted at the time of such a petition.

An owner or operator of the equipment and associated control equipment may elect to perform periodic stack tests and daily opacity observation in lieu of the above requirement. If this alternative is chosen, the owner or operator shall:

1. Verify PM₁₀ emission rates every four (4) months by stack testing using the methods and procedures specified in Condition 10 after completion of the initial compliance test. Test reports should be sent to the IDNR no later than 30 days following the test date.

After two (2) years of periodic monitoring stack tests the owner or operator could petition the Iowa Air Quality Bureau at any time to discontinue the periodic monitoring; and

2. Install a Continuous Opacity Monitoring System (COMS). The COMS shall be operated and maintained during all periods of operation except for COMS breakdowns and repairs. Operation of the COMS shall be in conformance with 40 CFR §60.13 to ensure that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. Or, the owner or operator may use full Method 9 observations when

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visible emissions are noted. If there are no visible emissions, then full Method 9 observations are not required,

7. In May 1999, Nichols conducted the initial PM₁₀ and VOC stack testing of EP 13. It was later determined that the tests were not conducted with EP 13 operating at maximum capacity. On July 21, 1999, the DNR sent a letter to Nichols stating the tests were not sufficient to demonstrate compliance with the initial testing requirement because the tests were not conducted at full capacity. Nichols was given sixty days to retest.
8. In August 1999, Nichols conducted further PM₁₀ and VOC stack testing of EP 13. On December 10, 1999, the DNR sent a letter to Nichols stating the test results demonstrated compliance with the permitted limits. The tests fulfilled the initial testing requirement of Condition 10 of PSD Permit #98-A-468P. The testing requirements stated in Conditions 14A and 14B of PSD Permit #98-A-468P remained in place.
9. Between December 1999 and June 2001, Nichols contends it operated under the belief that the testing requirements of Conditions 14A and 14B of PSD Permit #98-A-468P had been fulfilled or waived. At no time did the DNR waive the periodic stack testing requirements and Nichols did not provide any written documentation proving a waiver or fulfillment of the periodic stack testing requirements.
10. On June 26, 2001, representatives from the DNR and Nichols met to discuss the compliance issues regarding the facility. The DNR once again asserted the testing requirements of Conditions 14A and 14B for PM₁₀ and VOC remained in place, and Nichols stated its belief that it had been given a waiver from the testing. Nichols could not provide documentation of this waiver. As a result of the meeting, Nichols agreed to resume testing on EP 13.
11. On July 3, 2001, the DNR issued a Notice of Violation letter to Nichols for its failure to conduct the stack tests as required in Conditions 14A and 14B of PSD Permit #98-A-468P.
12. On August 28, 2001, Nichols conducted VOC testing on EP 13. A Nichols representative informed the DNR stack test observers that the facility was not conducting PM₁₀ testing because the facility believed the DNR waived the test for PM₁₀. The test results for the VOC testing were not submitted to the DNR.
13. On September 5, 2001, representatives from the DNR and Nichols met. The DNR representatives reiterated that the PM₁₀ testing had not been waived and the testing was still required. The DNR representatives once again stated that Nichols remained in violation of PSD Permit #98-A-468P.
14. On September 27 and 28, 2001, Nichols conducted stack tests for PM₁₀ and VOC on EP 13. On October 31, 2001, the DNR sent a letter to Nichols summarizing DNR's review of the stack test results and stating the results were sufficient to demonstrative

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compliance with permitted limits. The letter stated the results did not relieve Nichols of any responsibility to operate the source within compliance.

15. October 29, 2001, Nichols sent a letter to the DNR requesting the stack testing requirements for PM₁₀ and VOC be removed. On November 8, 2001, the DNR denied the request, stating the test results showed a large variability and further testing would be necessary to demonstrate Nichols could continually demonstrate compliance with the standards in its PSD Permit. The facility appealed the denial. After a meeting between the Department and Nichols, the appeal was resolved and the facility agreed to perform more testing.

16. On January 29, 2002, and February 12, 2002, Nichols conducted PM₁₀ and VOC stack tests on EP 13. On March 12, 2002, the DNR sent a letter to Nichols summarizing DNR's review of the stack test results and stating the results were sufficient to demonstrate compliance with permitted limits at the time of the testing. The letter stated the results did not relieve Nichols of any responsibility to continue to operate the source in compliance with all permit conditions.

17. In accordance with Conditions 14A and 14B of PSD Permit #98-A-468P, Nichols is required to continue to conduct additional PM₁₀ and VOC stack tests every four months until a total of six tests have been completed (testing requirement in permit required tests every four months after the initial test for a period of two years). At this time, Nichols has completed two of the six required tests. At the conclusion of the testing Nichols may petition DNR to discontinue the periodic monitoring requirements for PM₁₀ and VOCs pursuant to the permit conditions.

III. CONCLUSIONS OF LAW

1. Pursuant to the provisions of Iowa Code sections 455B.134(9) and 455B.138(1), which authorize the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division II (air quality), and the rules promulgated and permits issued pursuant thereto; and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties, this Department has jurisdiction to issue this order.

2. Pursuant to Iowa Code Section 455B.133, 567 IAC 22.4 adopted by reference 40 CFR Subsection 52.21, which defines a PSD major stationary source as any stationary source of air contaminants that emits, or has the potential to emit, 250 tons per year or more of any regulated pollutant. If the facility is one of EPA's 28 major source category types, the threshold is 100 tons per year or more of any regulated pollutant. Nichols is one of the 28 major source category types and has a major source threshold of 100 tons. This facility is classified as a PSD major stationary source facility.

3. Pursuant to Iowa Code Section 455B.133, 567 IAC 22.5(a) was established, which defines a major stationary source as a stationary source of air contaminants, which

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emits, or has the potential to emit, 100 tons per year or more of any regulated air contaminant. This facility is classified as a major source of air pollution.

4. Iowa Code section 455B.133 provides for the Environmental Protection Commission to establish rules governing the quality of air and emission standards. Iowa Code section 455B.134(3) provides that the director of DNR shall grant, modify, suspend, terminate, revoke, reissue or deny permits for the construction or operation of new, modified, or existing air contaminant sources and for related control equipment. Pursuant to these provisions and 567 Iowa Administrative Code sections 22.1 through 22.3, DNR issued Permit No. 98-A-468P for Rotary Barrel Furnaces and Associated Processes (EP 13). Rule 22.3(3) provides that a permit may be issued subject to conditions that may be specified in the permit. Such conditions may include but are not limited to emission limits, operating conditions, fuel specifications, compliance testing, continuous monitoring, and excess emission reporting. Nichols was required by its permit to demonstrate compliance with PM₁₀ and VOC emission limits by conducting stack tests every four months on EP 13 for a period of at least two years following successful initial testing. The successful initial testing was completed in August 1999, yet the VOC and PM₁₀ stack tests every four months on EP 13 did not begin until September 2001. The four-month periodic testing should have begun no later than December 1999 (four months after the successful initial testing). For a period of almost two years Nichols operated EP 13 in noncompliance with the conditions of PSD Permit 98-A-468P.

IV. ORDER

THEREFORE, the Iowa Department of Natural Resources orders and Nichols Aluminum Castings agrees to do the following:

- 1: Nichols Aluminum Castings shall comply with the emissions monitoring and testing requirements contained in Air Quality Construction Permit #98-A-468P;
- 2: Nichols Aluminum Castings shall comply with all air quality regulations pertaining to the operation of its facility in the future; and
- 3: Nichols Aluminum Castings shall pay a penalty of \$8,000.00 within 30 days of the date on which the Director of the DNR signs this administrative consent order.

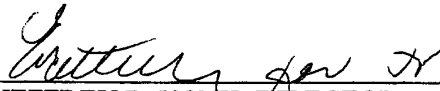
V. APPEAL RIGHTS

This administrative consent order is entered into knowingly by and with the consent of Nichols Aluminum Castings. For that reason, Nichols Aluminum Castings waives its right to appeal this order or any part thereof.


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VII. NONCOMPLIANCE

Failure to comply with this order may result in the imposition of further administrative penalties or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.146. The Department reserves the right to request that the Attorney General initiate legal action based on the violations alleged in this order as well as any subsequent violations if the order is violated, including failure to timely pay any penalty. The Department retains the right to pursue any violations not specifically identified in this order.


JEFFREY R. VONK, DIRECTOR
Iowa Department of Natural Resource

Dated this 03 day of
July, 2002.


for NICHOLS ALUMINUM CASTING
A Division of Quanex

Dated this 26 day of
June, 2002.

XI. Appendix D: Administrative Consent Amendment to Administrative Consent Order No. 2002-AQ-36

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XII. Appendix E: DNR Air Quality Policy 3-b-08, Opacity Limits

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XIII. Appendix F: U.S. EPA Region VII Compliance Extension Letters